THE LIBRARY OF CONGRESS
1800

Class AG105
Book G34
Copyright No.

COPYRIGHT DEPOSIT.

GENTISTORIA

THE NEW SYSTEM

An Original and Practical Method of
Self-Instruction which Broadens the
Mind, Encourages Progressive Effort,
and Paves the Way to Usefulness
and Success in Life .· .· .· .·

PHILADELPHIA, PA.:
HOME EDUCATIONAL SOCIETY
1908

AG105
G34

LIBRARY of CONGRESS
Two Copies Received
APR 2 1908
Copyright Entry
Apr 28 1908
CLASS A XXc. No.
205659
COPY B.

COPYRIGHT, 1906
COPYRIGHT, 1908
BY
JAMES P. BOYD, A.M., LL.B.

a.s.g. Apr.

Comprehensive History of National Political Parties in the United States ∴ ∴ ∴

HANDBOOK OF PARTIES AND POLITICS

NAMING OF PARTIES; THEIR RISE AND FALL; PRINCIPLES, PLATFORMS, CAMPAIGNS, VICTORIES AND DEFEATS.

The National Handbook of Parties and Principles

* * *

SHOWING

- Names and Drift of Parties
- History of Early Parties
- Federal and Republican Parties
- Whig and Democratic Parties
- Leading Measures of Both
- Free-Soil Democrats
- Squatter Sovereignty
- Native American Party
- Anti-Nebraska Men
- Rise of the Republican Party
- Conventions of Respective Parties
- Period of War and Reconstruction
- The Prohibition Party
- Campaigns of 1876, 1880
- American National Party
- Greenbackers and Greenbackism
- Populists and Populism
- All National Campaigns
- The Congresses and Measures
- Campaigns of 1896 and 1900
- McKinley's Death and Roosevelt's Succession
- New Administration Policy
- Campaign of 1902
- Fifty-seventh, Fifty-eighth and Fifty-ninth Congresses
- Trust Legislation and Decisions
- Problems of Anthracite Coal Strike
- Campaign of 1904

A SCORE OF VOLUMES IN ONE

THE VERY THING PUBLIC-SPIRITED MEN HAVE BEEN LOOKING FOR. NOTHING MORE COMPLETE AND HANDY. KEEPS YOU RIGHT ABREAST OF THE TIMES.

Comprehensive History of National Political Parties in the United States.

Names and Drift of Parties.

Naming of Parties.—Party names are frequently misnomers, in so far as they reflect the principles and objects of parties. Some have been assumed hastily, by force of outward circumstances, and without reference to preconceived purposes. Others have been forced upon new political organizations in a spirit of the ludicrous, or as a likeness of something familiar, or as an expression of intense enmity.

Meaning of "Whig."—Thus "Whig" came into use in America, as a distinctive and honorable party name, for no other reason than because it was familiar and suited an existing fancy. In its colonial sense it was a convenient set-off to the title "Tory," but in its truly national sense, and as the designation of the successor to the National Reupblican party, or as descriptive of one who favored internal improvements, a protective tariff, and a strong central government, or as the opposite of "Democrat," it had no significance whatever. "Whig" was originally the word "Whiggamore," a member of a body of insurgents, carters and others, who marched from the southwest of Scotland upon Edinburgh, in 1648, in opposition to the compromise with Charles I. Their cry of *Whiggam,* used in driving their horses, gave them the title of "Whiggamore raiders." The name, in the contracted form of *Whig,* passed, in a spirit of derision, to the Presbyterian rebels of the west of Scotland. After the restoration, 1660, it was applied to the Roundheads or Parliamentarians, as opposed to the Cavaliers. Still a nickname, and opposed to that other nickname, "Tory," it came to designate the liberal, or country, party of England, a use that was continued till the title "Tory" was lost in that of "Conservative," after 1832.

Origin of Other Party Names.—"Tory" itself was an English party nickname for a hundred and fifty years, and while it covered those who sustained the court and the divine right of kings, its original use by the Whigs was to confuse all Tories with the *tories* or outlaws inhabiting the Irish bogs. So the word "locofoco" as a designation of Democrat, and hence of the party, sprang into popular use, after 1835, through the incident of re-lighting the extinguished gas in Tammany Hall by means of friction matches, then a new device, and called "locofocos." The title "Know Nothing" was meaningless as to the principles of the American party, and only indirectly perpetuates the fact that it grew out of a set of secret societies.

Anomaly in Party Names.—But a greater anomaly as to political parties is that where they exist for any great length of time they frequently cross their principles, and sometimes drift entirely away from the intentions of their founders. In such instances, where original principles are lost sight of, the party name becomes a mere shibboleth, and blind partyism usurps intelligent adherence to principles. A party in such a strait is more of an obstruction and menace than a purifying, progressive and exalting agency, and it may well be questioned whether it is any longer entitled to the use of an ancient and honorable name.

Early Parties.

Transfer of Party Names to America.—The Colonial period could develop no national parties as we now know them, for the colonies were disjointed. But as they began to adhere over the question of taxation without representation, two orders of thought arose, one of which favored the right of the British Parliament to tax America, and the other opposed it. These same orders of thought existed in England, the former being designated by Tory and the latter by Whig, and these names were readily transferred to America. The Tory remained the fast friend of English sovereignty on our soil. The Whig, at first only an opponent of parliamentary claims, drifted into a Colonial unionist without separation from the mother country, and finally into a unionist with separation.

Parties of the Revolution.—The Declaration of Independence and the Revolutionary War brought the Tory party under odium, and left it without a mission on American soil. Its members became enemies of the country, and even traitors. As a party it met a speedy and deserved death. The principles of the Whig party became overwhelming, but its name grew to be traditional, through the almost universal use, according to locality or fancy, of such equivalents as "Popular Party," "Party of Independence," "American Party," "Liberty Party," "Patriots," etc.

Origin of the Federalists.—The Whig idea both brought about the Confederation and forced its abandonment. It equally substituted the Constitution for the Articles, and Union for Confederacy. The Tory title being a thing of the past, there was little use for its antithesis, Whig. The dominant idea under the new Constitution was how to unite the States more firmly, and how to provide for peace and war. This was Federalism, or Whigism under changed auspices, and in a new political rôle. Whigs lost their name entirely in the title Federalists. The Federal party became the national party, and in a certain sense the nation, for as yet Anti-Federalism had not become coherent, had accepted even what it opposed, so as not to jeopardize the experiment of Union. Thus Federalism, which was responsible for the new government, naturally sought its strength and perpetuity, by throwing all doubtful constructions of the Constitutions in favor of the central authority; that is, it interpreted the Constitution openly and liberally, saw in it a spirit as well as a letter, looked upon government under it as a creation with powers and functions to be questioned only by the people at large.

Anti-Federalism.—Now that the experiment of popular government had been fully launched, and the fact of a union was no longer in danger, the Anti-Federal spirit of the day began to take shape. It assumed the negative of the proposition of government as laid down by Federalism, and inclined to such a construction of the Constitution as would throw all doubt in favor of the States; that is, it interpreted the instrument closely, regarding it as an inelastic code, and government under it as simply an aggregate of powers with which the States had parted, and which they alone in their sovereign capacity were at liberty to question, or, if need be, recall.

Two Schools of Thought.—These may be regarded rather as schools of thought than as active and antagonistic political parties, yet they laid the foundation of subsequent parties, coherent in organization and with contra-distinguishing titles. While both schools were united as to the policy of a protective tariff, the propriety of honoring Washington with a second term of office, and in general a scheme of funding the national debt, there was an unconscious drifting apart upon the question of open or close construction of the Constitution, the trend of the liberal interpreters, or Federals, being more and more toward a fuller exercise of powers on the part of the National Government, and of the close interpreters toward the doctrine of State rights.

Democratic-Republican Party.—The adoption of the first ten amendments to the Constitution, which were regarded as in the nature of a declarative bill of rights, so disarmed all Anti-Federal opposition to the instrument as to render the title "Anti-Federal" a party misnomer. Jefferson felt that it was a perpetual reminder of opposition to the *fact* of government, and that if ever the varying, and often discordant, sentiments it represented were to be crystallized, some new and more appropriate name must be adopted. His opportunity soon came. Aglow with the spirit of the French Revolution and the fires of the French Republic, his admiration, on his return to this country, became infectious, even assuming the fantastic form of dress and manner. The Federals, fearing the introduction of the ungovernable, leveling and communistic spirit of France, opposed such threatened innovations, and became more coherent than ever as a party, in proportion that Jefferson and his admirers grew warmer, more united, more aggressive. Only a name and banner were needed to complete a formidable organization. These the genius of Jefferson supplied. His party should, first of all, be "Republican." That would set it off sharply against Federalism. In order to group all elements within it, it should be "Democratic." What therefore so comprehensive, popular and imposing as "Democratic-Republican," for that became the new party name, symbol of all opposition to Federal crystallization, of everything Anti-Federal.

Partyism in Fact.—Then began partyism as we have known it ever since. The Federals denounced Democratic-Republicans as Jacobins, held their pretensions up to contempt, and so ridiculed their compound title as to force abandonment of its first part, leaving only the word "Republican" as the distinctive and popular name. Nor was abuse wholly on the side of the Federals. The Republicans countered bitterly, denouncing their opponents as aristocrats and monarchists, and stirring all the fires of partisan animosity in the bosom of the masses. Such was the antagonism that Washington openly complained of it as a substitution of unjust suspicion and personal antipathy for the old spirit of friendly compromise.

Federalist and Republican.—As already intimated this alignment of parties did not affect Washington's second election, though it brought the wrath of the Republicans on him and all Federals for their policy of neutrality between England and France. Jefferson left Washington's cabinet, and retired to his Virginia plantation to further develop, by writing and plan, the new Republican party of which he was the acknowledged founder. His master hand became visible in promoting attacks on the administration. The Republicans opposed indirect taxes with direct taxes, the liability of State to suit with the eleventh amendment to the Constitution, the Jay treaty with denunciation of Washington as an embezzler and usurper.

The expiration of Washington's second term brought the two parties into square contention for that national supremacy indicated by the choice of a Presidential candidate.

Federal and Republican Parties.

Federal Victory.—In the national convention of 1796, the Federals, with John Adams as candidate, and with no platform except the claim to represent Washington's policy of peace, neutrality, finance, progress and safety, won a victory over the Republicans, with Thomas Jefferson as candidate, and with no platform except the claim to economy, enlarged liberty, rights of man and rights of States. But this victory was rendered incomplete and partially barren by the choice of a Republican Vice-President in the person of Thomas Jefferson, the election at that time being held through the State legislatures, and the candidate receiving next to the highest number of votes becoming the Vice-President.

Republican Victory.—During Adams' administration the Republicans gained ground by their opposition to the Alien and Sedition laws. But their most substantial gain was that indirect one which grew out of division in the Federal ranks. Adams had estranged such advisers as Hamilton, and had ignored his entire cabinet in his change of policy toward France. Though nominated for the Presidency by the Federals in 1800, the Republicans won a victory with Jefferson and Burr, the contest between these two being settled in the House of Representatives.

Federal Breach.—The Republican victory was nothing in its bearing on party lines as compared with the permanent breach in the Federal ranks. The strength and glory of Federalism seemed to have expended itself in placing the government on a firm basis, in giving it such power as would make it respected at home and abroad, in restraining a permanent policy of neutrality. The unanimity and boldness which had been equal to the solution of most intricate financial problems, to the provision of ample revenue, and to the building up of an enduring national credit, were in strange contrast with its divisions and weaknesses at the time the Republicans won their first national victory.

Republican Policy.—Jefferson was supported by Republican majorities in both Houses of Congress. He mapped a vigorous policy for his party, and in his choice of officials showed little mercy for the Federals. The act repealing the establishment of circuit courts drove the Federals from their last hold on the government, and they never recovered their lost ground. Though they largely typed the wealth, intellect and culture of the country, there seemed to be no escape from the blow of 1800. In 1804 they were vanquished in every State except Connticut, Delaware and part of Maryland. Jefferson adroitly turned every new situation to popular account, and as he had the entire confidence of the masses, he kept his party on a happy vantage ground with a vigor that was well-nigh autocratic. He gave to Republicanism a decided affirmative in action, and kept the Federals on a distractive defensive but little removed from the sharp agony that presaged a not distant death.

Clintonian Democracy.—The unpopular Embargo Act of 1807 proved to be a Republican boomerang, by which the Federals profited to the extent of greatly reducing Republican majorities for Madison as President and in the House. But threats of war with England, and finally the war of 1812, served to render Madison's re-election sure. Just here a notable change came over the spirit of the Republican party. The ordeal of war had taught it the necessity of doing many things for the safety of the country it had before repudiated as Federal measures. If Federalism was dying, Republicansim was honoring it by occupying its ground on most of the questions relating to national preservation. While dire emergency was the excuse, the same excuse had not been accepted as good Federal logic. But more than this, a new school of thought had sprung up within Republican ranks. It was critical, independent, largely Federal in that it found in the preservation of our commerce grounds for opposition to the war, progressive, in that it favored internal improvement, liberal in that it objected to the Republican idea of strict construction. It did not dread the title Jacobin, and was rather pleased with the title Democrat. Indeed, as Clintonian Democrats, it made its presence and strength felt in the national election of 1812, when it nominated De Witt Clinton for the Presidency, which nomination was accepted by the Federals as the best that then offered.

Federal Decay.—President Madison felt that the peace of 1814, meaningless though it was, was a narrow escape for him and the Republican party. The war, unpopular though it was, had proven another nail in the Federal coffin. Inflamed partisanship formed in the Hartford convention a weapon both keen for cutting and blunt for beating. The Federal decay was thenceforth rapid. The party nominated Rufus King for the Presidency in 1816, but carried only Massachusetts, Connecticut and Delaware.

Era of "Good Feeling."—Upon the election of Monroe, in 1816, came what was called "The era of good feeling." Organized Federal opposition had nearly ceased. The Republican House organized by the unanimous election of Henry Clay as Speaker. He was one of the liberal and advanced Republicans, able to carry his party with him as to protection, internal improvement, and even the establishment of a national bank, all favorite Federal measures. Calhoun belonged to this school of thought. President Monroe favored it. The old, or strict construction, school of Republicans looked with alarm on the daily growing strength, number, and boldness of the new element in their ranks. The movement, so ably led, so aggressive, so fully supported by Federal aid as to absorb the remains of that party and stamp its extinction as complete, proved to be the germ of a new party, whose growth was hastened by the slavery discussions over the entry of Missouri as a State, in 1818-20, and by the distinct affirmation of the protective doctrine in the same years. The latter doctrine fairly divided the Republican ranks.

Era of No Politics.—There were really no political parties in 1820, Monroe being chosen President without opposition, and without even a nomination by the Republicans. In the 16th Congress, November, 1820, Clay resigned the Speakership of the House. The election of his successor showed that the new and liberal wing of the Republican party was now the stronger, for Taylor of New York, the successful candidate, was equally, if not further, advanced than Clay in his advocacy of a protective tariff and internal improvements, and in his opposition to the extension of slavery in the Territories.

Liberal Republican Wing.—During Monroe's second term, 1821-25, the contention between the old school element of the Republican party and the new, or liberal, school, grew bitter, and the breach rapidly widened. Monroe broke with the liberals and opposed internal improvement. The contention reached down to the masses. The election of Clay as Speaker of the House in 1823 was heralded as a significant victory of the Liberal Republican wing, which now took the affirmative of all national questions. Clay had already foreshadowed the "Monroe Doctrine," and Monroe swung back sufficiently to the liberal side to favor, in his message of 1823, the tariff act of 1824, and a plan of internal improvement, thus emphasizing what became known as "The American System."

Disruption of the Republican Party.—In the national election of 1824, known as the "Scrub race," the two Republican wings ran separate Presidential candidates, the liberals supporting Clay and Adams, and the strict-constructionists Crawford and Jackson. The election went to the House, and John Adams was chosen. This result practically disrupted the Republican party and sounded its death knell. It was now to find a grave with its deceased antagonist, the Federal party, which it had outlived but a few years. They both died of the same disease, inanition due to violent disruption.

Whig and Democratic Parties.

Hunting a New Party Name.—The political movement which, as we have just seen, had ripened within the Republican ranks, and had broken them in twain, was now ready for separate identity under a national name. But a proper title was not easy to be found at first. The right name must be evolved by the ferment of the situation. Adams, as was to be expected, entered on his administration with the Crawford adherents firmly against him. These belonged to the "straightest sect" of strict constructionists. It was but reasonable for Adams to expect the support of Jackson and his followers, for all these had mostly inclined to the old Federal ideas of protection and internal improvement, and in this respect had cooperated with Clay in bringing about revolution in the Republican ranks.

Coherence of New Parties.—But Jackson was embittered by his defeat by Adams, and he and his forces joined those of Crawford in opposition to Adams' administration. Adams had made Clay his Secretary of State. This opened the way for charges of collusion between Adams and Clay, and much crimination and recrimination followed, serving to unite more closely the followers of Crawford and Jackson, as well as those of Adams and Clay.

National Republican Party.—President Adams, in both his inaugural and first message to Congress, enunciated a set of principles which, as to protection, internal improvement and liberal construction of the Constitution, answered as a permanent bond of agreement between his own followers and those of Clay. Thus solidified, the party, now virtually a separate one, with distinctive principles, and with John Adams as its candidate for President in 1828, adopted for its name that of "National Republican," though it passed through that campaign under the general designation of "Adams Men." The title "National Republican" was comprehensive and excellently chosen, for it not only showed that the new party had germinated within the old Republican ranks, but that it had assumed independent being as a liberal, or national interpreter of the Constitution. But accurate and full of meaning as the title was, it was bound, by that strange fatality which sometimes attends party names, to be of short duration, for in a few years it was pushed aside to make room for the meaningless title of "Whig."

"Jackson Men."—The Crawford and Jackson followers were united only in their opposition to the National Republicans. No doubt they would have perpetuated the title of Republican in the campaign of 1828, but for the fact that Crawford was sick, and it required the tremendous personalism of Jackson to hold the two opposing wings of the party together. This he did by becoming a candidate for the Presidency against Adams, and by dropping the title Republican altogether, his followers becoming known as "Jackson Men," in contradistinction to "Adams Men."

Suggestion of "Democrat."—But as the title "Adams Men" only temporarily usurped that of "National Republican," so when it became necessary to get rid of the personalism of Jackson, the title "Jackson Men" began to give way to something else. Men like Calhoun and others, who never cared for the name Republican, preferred to be spoken of as "Democrats." The title "Democrat" could not, however, be at once projected on the party, for Jackson's personalism was yet too strong, and if his own name was to be lost as a party shibboleth, he preferred that it should be swamped by a revival of the old Republican name, rather than by the new name of Democrat, especially since the latter had been proposed by the ultra wing of strict constructionists.

Substitution of "Democrat."—The time when "Democrat" began to have meaning in a party sense, and as comprehensive of "Jackson Men," or of Republican, and as expressive of definite principles, was in 1831, preparatory to the Presidential election of 1832. Yet even in that election the transition to "Democrat" was not complete, for the Jackson, or Republican ticket was thus headed: *"Democrat-Republican ticket for President in* 1832, *Andrew Jackson."* While this compromise title showed the elimination of Jackson's personalism to a certain extent, it showed also that the time was not yet ripe for the entire dropping of the old word "Republican" and the complete substitution of the new word "Democrat." This substitution was not completed until 1832-33.

National Republican Principles.—In 1832 the ticket of the National Republican party was headed *"National Republican Candidate for President in* 1832, *Henry Clay,"* thus showing that the title had come into full recognition prior to that time.

In the national campaign of 1832 the National Republicans, with Clay as their nominee, defined their principles as tariff, internal improvement, question of removing the Cherokee Indians, renewal of United States Bank Charter. The Democrat-Republicans published no declaration of principles, they being agitated within either by the grave question of nullification, or by serious divisions respecting the tariff. In the former, Jackson scored a signal triumph after his election. Respecting the latter, Clay effected one of his disastrous compromises by accepting the ten-year scaling tariff of 1832-42.

Democrat and Whig.—Jackson's financial policy, especially that relating to the destruction of the United States Bank, together with dissatisfaction respecting the workings of the sliding-scale tariff, intensified opposition to his second administration and to his party, which had by this time adopted the single term "Democrat." Party antagonism was heightened by the bursting on the country of the panic of 1837. During the latter part of Jackson's administration the title "Whig" had come into general use as a substitute for that of National Republican, and as a party designation it was complete in the National campaign of 1836.

"Locofocos."—In order to head off the strict State-rights Democrats of the South, who had early nominated H. L. White, of Tennessee, for the Presidency, the forces of Martin Van Buren, whom Jackson desired should be his successor, met in popular convention in Baltimore in May, 1835, nominated Van Buren for President, and set forth a platform, the most important plank in which was adherence to gold and silver as a circulating medium.

The members of this convention were not designated as Democrats, but as "Locofocos," a term which had sprung into popular use the year before, and which grew out of an incident at Tammany Hall, New York, in which the lights were put out during a Democratic meeting, and relit by means of locofoco matches, then a new invention.

Thus "Locofoco" and "Whig," coming into popular use at nearly the same time, were fair set-offs to each other, and one was as meaningless as the other.

Anti-Slavery Forces.—In this campaign of 1836 the Whigs, Anti-Masons, and some other opponents of Van Buren nominated William Henry Harrison, of Ohio, for President. Van Buren was elected. During the closing days of Jackson's second administration a new and hitherto silent force, known as the National Anti-Slavery Society, incorporated in 1833, began to make itself felt in a political way. By means of lectures and literature it had given offence to the South, and a strenuous effort was made to deny it the use of the United States mails. But Congress was not found ripe for so hazardous an experiment.

Conservatives.—Van Buren felt himself to be the executor of Jackson's financial policy, but the crisis of 1837, and a violent faction of his own party, calling themselves "Conservatives," caused the Twenty-fifth Congress to defeat some of his pet schemes of finance. This Congress, too, was the scene of long debates over the question of Federal control of slavery, a question that entered nearly every subsequent Congress till 1863.

A Whig Victory.—In 1840 the Whigs nominated William Henry Harrison for President, without a platform. The Democrats renominated Martin Van Buren, with a lengthy platform, which is curious as serving to shape Democratic policy for a long time, if not even to the present day. Its gist was (1) The Federal Government is one of limited powers. (2) The Constitution does not confer on the Government the right to carry on a system of internal improvement. (3) Nor to assume the debts of the States contracted for internal improvement. (4) Justice and sound policy forbid the Government to foster one branch of industry to the detriment of another, or one section to the injury of another. (5) Economy urged. (6) Congress has no power to charter a United States Bank. (7) No power to interfere with the domestic institutions of the States. (8) Government money must be separated from banking institutions. (9) This country is an asylum for the oppressed of all nations.

The Liberty Party.

Rise of Liberty Party.—During this campaign the Abolition or Liberty party first openly appeared in the political arena, with James G. Birney as its candidate for President, and with a platform favoring the abolition of slavery in the District of Columbia and in the Territories; stoppage of the interstate slave trade; and opposition to slavery to the fullest extent of all Constitutional powers.

Tyler's Defection.—General Harrison was elected, but died April 4, 1841, leaving Tyler as his successor. Then came an era of antagonism between the President and the Whig majority in Congress, pending which Tyler was excommunicated by his party. The Whigs were greatly demoralized by Tyler's defection, and it was only with the greatest difficulty, and after repeated modifications, that they secured Presidential sanction of their favorite measure, the tariff act of 1842. Clay became so disgusted with attacks upon him, and with public life in general, that he resigned from the Senate. This was a terrible blow to the Whigs, for in Clay's action they had lost their recognized leader. They lost the Congressional elections of 1842, and were further demoralized by divisions over a policy suited to the questions of slavery and Texas annexation.

Parties of 1844.—In the campaign of 1844 the three existing political parties were in the field. The Liberty party nominated for President James G. Birney, of Michigan, and adopted a platform which was explicit in its denunciation of slavery and the slave trade.

The Whigs nominated Henry Clay for President on a platform declaring for well-regulated currency; tariff for revenue, but discriminating in favor of domestic labor; distribution of proceeds of sales of public lands; single term for the Presidency; reform of executive usurpation.

The Democrats tried to nominate Van Buren, but his defeat was accomplished by the adoption of the two-thirds rule for securing a nomination, a practice that has held ever since in Democratic national conventions. The nominee became James K. Polk, of Tennessee, on a platform affirming that of 1840, with the addition that Oregon and Texas ought to be annexed.

The Whigs fought the battle on the lines of protection. It was a close battle, and would have been won for Clay but for the fact that he unwisely undertook to conciliate Southern Democrats by a letter favoring postponed action on the question of Texas annexation. Polk was elected, and with him a Democratic Congress.

Polk's Administration.—The leading party measures of Polk's administration were the Mexican War, which the Whigs could not, in a spirit of patriotism, bitterly oppose; the settlement of the Oregon boundary, in which the Whigs came to the rescue of a Democratic minority; the disappointing tariff act of 1846, passed in defiance of Democratic campaign promises not to disturb the tariff of 1842, and the historic "Wilmot Proviso," whose introduction marked the beginning of a wide split in the Democratic party.

Free Soil Democrats.

Democratic Policy.—In 1848 the Democrats nominated for President Lewis Cass, of Michigan, on a platform affirming that of 1844, and adding congratulations over the results of the Mexican War; denouncing a tariff, except for revenue; hailing the tariff of 1846 as a substitute for that of 1842.

Whig Policy.—The Whigs nominated General Zachary Taylor, of Louisiana, without a platform, but with a subsequent series of ratification resolutions endorsing the then well-known Whig principles of protection, etc.

Free Soil Principles.—And now appeared the new political force foreshadowed by the introduction in Congress of the Wilmot Proviso. The Democratic position on the slavery question had for some time been too ultra and threatening to suit the views of a strong minority of the party. This minority could not brook the doctrine that the Government had no power to regulate slavery in the Territories. This doctrine was put to a test on the floor of the Convention that nominated Cass for President, and the rabid pro-slavery sentiment prevailed. Thereupon the Democrats who favored Government interference with slavery in the Territories, or, in other words, those who opposed the extension of slavery to the Territories, resolved to meet in Convention and nominate a ticket of their own. They so met at Buffalo, in August, 1848, and nominated Martin Van Buren, of New York, for President, and Charles Francis Adams, of Massachusetts, for Vice-President. They called themselves "Free Soil Democrats," and they embraced two factions, one locally known as "Barnburners," opposed to the extension of slavery in the Territories, the other simply opposed to further agitation of slavery, and locally known as "Hunkers." They adopted a lengthy platform, seeking free soil for a free people; announcing that Congress had no more authority to make a slave than to make a king; affirming the ordinance of 1787 and the Jeffersonian doctrine that after 1800 no slavery should exist in the Territories; favoring internal improvements, proclaiming the watchword, "Free Soil, Free Speech, Free Labor, Free Men."

Whig Victory of 1848.—In the campaign the old Liberty party united with the Free Soil Democrats, while many of the rabid Southern Democrats preferred to trust Taylor, a Southern man, to Cass, a Northern man, on the slavery question. New York was the pivotal State, and as the Liberty party, by dividing the Whigs in 1844, had given it to the Democrats, so now the Free Soil Democrats, by dividing the regular Democrats, gave it to the Whigs, and Taylor was elected.

Compromise of 1850.—The question of introducing slavery into the vast Territories acquired by the Mexican conquest, and of protecting it there, and, of course, everywhere, by Government interference, was at its height during Taylor's administration. Calhoun, the recognized pro-slavery leader, pushed the question by proposing to extend the Missouri Compromise line of 1820 clear through to the Pacific. Taylor's position was that California, then ready for Statehood, should be admitted without slavery, as her Constitution provided, and that the other Territories should be erected without reference to slavery, leaving them to settle that question for themselves when they came to be admitted as States. At this juncture Clay offered his compromise measure of 1850, it being virtually the plan proposed by President Taylor, except that it embraced a more vigorous fugitive slave law. The Whigs and Free Soilers regarded this compromise as weak, and as an unnecessary surrender of free soil principles. The pro-slavery Democrats were but little better pleased with it, for opposite reasons. California came in as a free State September 9, 1850, and on September 15, 1850, slavery was abolished in the District of Columbia. Taylor died July 9, 1850.

Boding of Whig Disaster.—After Taylor's death the political situation became complex, and boded disaster to the Whigs, who in their national convention had failed to commit themselves to the doctrine of the Wilmot Proviso, thereby estranging the Liberty party, which it might have readily attracted, and, what was worse, driving out many of their leaders into the ranks of the Free Soil Democrats, who were now more bitter opponents of slavery extension than the Whigs themselves.

"Squatter Sovereignty."—A large part of the

Whig strength lay in the South. Therefore it was hardly to be expected that the party could escape the slavery mælstrom. Calhoun's failure to force the slave line of 36° 36′ through to the Pacific, thus confirming a free and slave section of the Union, led to a hardening of the pro-slavery lines, to the broad denial of the Government's right to interfere with slavery at all, to threats of disunion and to talk of the necessity of setting up a new set of institutions whose object should be the protection of slavery. These discussions drew over the pro-slavery Whigs to the Democrats, but they carried along with them into the Democratic ranks the doctrine that had been broached but voted down in the Democratic National Convention of 1848, to wit: that the people of each Territory should be left free to treat the slavery question as they pleased. Coming from such a source and in such a way, the Democrats could not escape the force of this doctrine before the country. It was the doctrine that afterwards became known as "Popular" or "Squatter Sovereignty," which figured so prominently in the Kansas affair, and which served to draw such men as Douglas, Geary and Reeder outside of the Democratic lines. The California miners had applied it in their own State. While the doctrine, or its opposite, had forced the Whig party asunder, it was now about to do the same thing for the Democratic party.

Decline of the Whig Party.

Parties in 1852.—In 1852 the Democrats nominated Franklin Pierce, of New Hampshire, for the Presidency. Their platform affirmed that of 1848, and added an endorsement of the compromise measures of 1850, emphatic opposition to the interference of Congress with State affairs, adhesion to the Kentucky and Virginia resolutions of 1798, no monopoly for the few at the expense of the many, and the Union as it is and should be.

The Whigs nominated General Winfield Scott, of Virginia, for President, on a platform favoring tariff, internal improvement, a Government sufficiently strong to make it operative, the compromise measures of 1850. This last plank was also in the Democratic platform, but the Whigs fell into the trap set by the extreme pro-slavery leaders, and foolishly added to the plank the words "including the fugitive slave law." The plank was a bold stroke on the part of the pro-slavery people to commit both parties to the extension of slavery, but the attempt reacted with thrice the effect on the Whig party that it did on the Democrats.

The Free Soil Democrats nominated John P. Hale, of New Hampshire, for President, on a platform denouncing the fugitive slave law, the compromise measures of 1850, and slavery extension.

Whig Defeat and Dilemma.—The result of the election was most disastrous to the Whigs. They carried but four States. But this was by no means their worst blow. They stood appalled at the discovery that their endorsement of the compromise measures of 1850 and of the fugitive slave law had proved to be a logical commitment of the party to further slavery agitation, if not to actual slavery extension. They could not advance except by going directly into the Democratic ranks. They could not retreat except with shame and demoralization. They could not stand still, for the Free Soil Democrats had swept the ground from under their feet. They never recovered from their shock, and, losing their organization, never ran another President. As was piquantly said, the Whig party died of too much compromise, of a "vain attempt to swallow the fugitive slave law."

Pierce's Administration.—President Pierce moulded his administration wholly in the interest of the pro-slavery Democrats. This party was now in position to force its construction of the slavery issue, for it had large majorities in both House and Senate. The construction forced was that the compromise measures of 1850 repealed those of 1820, and therefore the slavery question was again open as to all the territory of the United States. The gage of battle was thrown down in the celebrated Kansas-Nebraska contest, which served to solidify the pro-slavery Democrats and Whigs, to divide the Northern Democrats into two equal factions and to divide the Northern Whigs into two parties, one of which coalesced with the Free Soil Democrats, the other, to soon lose its name and identity entirely, for a time under the title of anti-Nebraska men, and afterwards in that of the modern Republican party.

Native American Party.

Native American Leaven.—The Native American idea is almost as old as the country. It cropped out in 1790 in connection with the passage of a naturalization law, and again in 1795, 1798, and again in 1802. The legislation of the latter date was designed to secure to the old Republican party the preponderance of foreign votes in the cities. To correct this, an organized movement was begun in New York as early as 1835, and in 1844 the Native Americans carried the city. The movement spread to other cities, and was signalized by great excitement and riots.

Know Nothing Party.—In 1852 it reappeared in politics as a secret organization, known officially as the American party, but popularly as the Know Nothing party, from the reticence of its members. Its cardinal principle was "Americans must rule America." Its rise was rapid, and its existence being at a time when the Whig party was disintegrating, and when much dissatisfaction existed in all political organizations, it was greatly encouraged to exist by its ability to hold the balance of power in many cities and even States. In 1855 it carried no less than nine State elections.

Native American Principles.—In the national campaign of 1856 it entered the race for the Presidency by nominating Millard Fillmore, of New York, on a platform of distinct Americanism and naturalization only after a residence of twenty-one years, with denunciation of existing parties as sectional. It succeeded in carrying the State of Maryland. In the 34th Congress it had a strong contingent of members, forty-three in all in the House and five in the Senate. In the Thirty-fifth Congress it had only five members in the House.

Constitutional Union Party.—In the vicissitudes of parties between 1856 and 1860 its titles became merged into that of "Constitutional Union," and in the latter year it placed John Bell, of Tennessee, in nomination for President, who succeeded in securing twelve electoral votes. It did not again appear in a Presidential race.

The Republican Party.

Anti-Nebraska Men.—It is not worth while here to go through the history of the Kansas-Nebraska act of 1854, with its subsequent bloody contentions for political supremacy on the soil of these Territories. Suffice it to say that all efforts to fasten slavery on these Territories by Government intervention were met by a determined opposition sentiment, which was temporarily crystallized under the title of anti-Nebraska sentiment. Its exponents became known as anti-Nebraska men. They embraced men of all parties who opposed the pro-slavery methods of making slave States, controlled the House in the Thirty-fourth Congress, and participated in one of the stormiest sessions of its history.

Naming the Republican Party.—It was seen by political leaders of anti-Nebraska sentiment that if the elements which composed such sentiment could be organized a new national party would logically result. The title "Republican" was said to have been suggested by Governor Seward, of New York, in the latter part of 1855 or early part of 1856, as a substitute for anti-Nebraska men, who were as a rule opposed to slavery and slavery extension. The former title would nationalize the latter, and raise a standard around which could rally the old Liberty party, the Free Soil Democrats, the anti-slavery Whigs, and all who doubted the propriety of following further the Democratic party in its now rapid strides toward absolute State rights and slavery extension.

The name "Republican" served the purpose intended, though it was for a time stigmatized as "Black Republican" by its enemies, on account of its sympathy with the colored race.

Republican Principles.—By June 17, 1856, the title was sufficiently indicative of a national principle, and had served to cohere so large a number of leaders, that it ventured on a National Convention at Philadelphia, at which John C. Fremont, of California, was nominated for President. The platform declared that the Constitution, the rights of States and the union of States shall be preserved; that life, liberty and property shall be preserved by due process of law; that Congress had no right to legislate slavery into a Territory; that the administration had no right to defy the will of the people of the Territories; that the Government should extend aid to a Pacific railroad and to internal improvements.

Other Parties of 1856.—In this campaign of 1856 the Know Nothing party was first in the field, as we have just seen. It was followed by the Democratic party at Cincinnati, which nominated James Buchanan, of Pennsylvania, on a platform affirming preceding ones, and adding an endorsement of the Kansas-Nebraska bill, and of the Squatter Sovereignty method of leaving slavery in the Territories to be settled by the people therein.

What was left of the old Whig party met at Baltimore, where it joined with the Know Nothings in denouncing the Democratic and Republican parties as sectional, and in supporting Millard Fillmore for President. This was the last appearance of Whig on the party lists.

Election of Buchanan.—The result of the campaign of 1856 was the election of Buchanan, the Democratic nominee, with a Democratic Congress, though the new Republican party had ninety-two members. The popular vote showed the possibilities of the new party, and the popular vote of the entire country was largely against the Democrats.

Pro-Slavery Democrats.—The pro-slavery Democrats, though they had Buchanan's administration with them, soon repented of their platform endorsement of Squatter Sovereignty, for they saw that they could not colonize the Territories as rapidly and effectually as the North could. They therefore drifted more and more toward other means of extending slavery, even if the last desperate means of secession had to be resorted to. Their drift bore the administration with it, and the way was illuminated by the Dred Scott Decision, which in effect wiped out the compromises of 1820 and 1850, crushed the principle of Squatter or Popular Sovereignty, opened the Territories, and even States, to slavery, despite their local laws, and nationalized the institution.

Douglas Democrats.—This decision extinguished the last hope of Douglas and his now important Democratic following for a settlement of the vexatious and dangerous slavery question on the basis of Popular Sovereignty, and they began to drift away from the regular organization. When the question of admitting Kansas as a State under the famous Lecompton Constitution was before the Thirty-fifth Congress, 1857-58, the Douglas wing of the Democratic party, under the name of Anti-Lecompton Democrats, voted with the Republicans against the measure.

Favorable Republican Sentiment.—In the Congressional elections of 1858 the tide of national sentiment ran strongly in favor of the new Republican party, and the number of their members in the House rose to one hundred and nine, or more than any other party, though not a majority of all. The slavery question was still on in all its bitterness, and in 1859 it was intensified by the John Brown affair at Harper's Ferry.

Divided Democracy.—The campaign of 1860 opened with the Democratic Convention at Charleston, S. C., April 23, 1860. It proved to be a battleground for supremacy between the Southern or extreme pro-slavery Democrats and the Douglas Democrats. The latter won, so far as the platform went. Many pro-slavery Democrats withdrew, but enough remained to prevent Douglas' nomination. The Convention at length adjourned to meet in Baltimore, June 18th. Here Douglas was nominated for President. But a portion of the Baltimore Convention now seceded and met the seceders from the Charleston Convention, first at Charleston, then at Richmond, and finally at Baltimore, where John C. Breckenridge, of Kentucky, was nominated for President on a pro-slavery platform.

Nomination of Lincoln.—The Republicans met in National Convention at Chicago, May 16, 1860, and nominated Abraham Lincoln, of Illinois, for President, on a platform announcing the necessity for a Republican party; denouncing all schemes of disunion and the Kansas policy of the Buchanan administration; declaring in favor of protection, a Homestead law, internal improvements, and aid for a Pacific railroad. The American party made its last appearance in the national arena under the name of the Constitutional Union party, at Baltimore, and nominated John Bell, of Tennessee, for President.

Lincoln's Election and Civil War.—The Republican party elected Mr. Lincoln President. This election resulted also in a Republican House and Senate. The pro-slavery wing of the Democratic party regarded this result as a cause for secession of the slave States from the Union. They set up the Southern Confederacy and inaugurated war by firing on Fort Sumter, April 13, 1861. This was the great American Civil War, in the United States, which was to last for over four years, and to end with the extinction of the Confederacy and a restored Union of States.

Lincoln's First Administration.—Pending this war, the Republican party held possession of all branches of the Government. In 1863 the vexatious question of slavery was forever settled by its entire abolition in the United States. The measures of Lincoln's first administration were chiefly those of war and finance. In 1861 a tariff bill was passed in accordance with the Republican doctrine of protection.

Democratic Policy of 1864.—Though the Democrats of the Northern States co-operated largely with the Republicans in measures looking to the direct suppression of the Confederacy, they still held to their party organization sufficiently to put all strictly party questions to severe test, and as the time for the national election of 1864 drew near they were encouraged to meet in National Convention at Chicago, and nominated General George B. McClellan for President. This Convention was dominated by the reactionary or peace wing of the party, called "Copperheads," by their opponents. The platform announced adhesion to the Union under the Constitution; demanded a cessation of hostilities and a peace Convention, after four years of failure to restore the Union by war; opposed military interference with elections; set forth the objects of the party as a restoration of the Union with the rights of the States unimpaired; denounced war measures in general; expressed sympathy for soldiers and sailors.

Lincoln Renominated.—The Republican National Convention of 1864, at Baltimore, renominated Abraham Lincoln for President on a platform pledging the party to suppression of the Confederacy; to peace on the unconditional surrender of all disunionists in arms; to an amendment to the Constitution prohibiting slavery; extending thanks to soldiers and sailors; approving Lincoln's administration; pledging the national faith to the redemption of the public debt; approving the Monroe Doctrine.

Radical Republicans.—These two conventions were supplemented by one at Cleveland, Ohio, held under the auspices of "Radical Men," a Republican faction opposed to Lincoln on account of his tardiness respecting matters appertaining to slavery. It nominated John C. Fremont for President, but the movement collapsed, and afterwards became a part of the regular Republican party.

Lincoln's Assassination.—The issue of war failure and of peace by compromise presented by the Democrats in 1864 was met squarely by the Republicans, and the result was an overwhelming victory for the latter, both as to the Presidency and the Congress. The war practically ended with Lee's surrender, April 9, 1865. On April 14, President Lincoln was assassinated. He was succeeded by Vice-President Johnson, who was to play toward the Republicans the part of Tyler toward the Whigs, through the trying period of reconstruction of the seceded States. Though baffled at every turn by the President, the Republican majorities in both Houses of Congress were such as to enable the party to carry through most of its terms of reconstruction, and to amend the Constitution so as to secure civil rights and the right of suffrage to American citizens.

Democratic Policy, 1868.—The stormy period of reconstruction served to unite in a measure the Northern and Southern wings of the Democratic party. The disturbing question of slavery eliminated, they could once more make common cause against the Republicans, which they did in the campaign of 1868, with Horatio Seymour, of New York, as their candidate for President, and with a platform recognizing the question of secession and slavery as settled; demanding the immediate restoration of the Southern States, and the settlement of the question of suffrage by the States themselves; amnesty for all offences, payment of the public debt in lawful money, where coin is not called for; equal taxation and one currency; economy, and abolition of the Freedmen's Bureau; tariff for revenue with incidental protection; general arraignment of the Republican party; gratitude to Johnson for resisting the aggressions of Congress.

Republican Policy, 1868.—The Republicans met in National Convention at Chicago, May 20, 1868, and nominated General U. S. Grant for President. Their platform embodied the following: (1) Congratulation over the success of the reconstruction policy of Congress. (2) Equal suffrage to all loyal men. (3) No repudiation of national promises to pay. (4) Equalization and reduction of taxation. (5) Reduction of interest on public debt and gradual payment of same. (6) Improvement of national credit. (7) Johnson's treachery denounced. (8) Honor to soldiers. (9) Encouragement of immigration. (10) Commendation of all loyal men in the South.

Campaign Issues.—The main issues of the campaign were the reconstruction measures of Congress and equal suffrage, the latter a new question rising out of the condition of the freedmen. The popular verdict was strongly in favor of the Republicans, both as to President and Congress. Grant's first administration was full of vexations, on account of a new force in the South which, under the various names of "Unreconstructed," "Irreconcilables," "Ku-Klux-Klan," etc., rose up in opposition to Federal authority, and especially to the newly formed State governments, which were denounced as "Carpet-Bag Governments." This force applied the doctrine of "a white man's government" with such effect as to terrorize all organized opposition, and eventually to gain its point. But while the administration was thus struggling with ever-recurring vexations, the Supreme Court came to its rescue with a decision that Congress had the power to establish the relations of all the States to the Union. An equally important decision declared the Legal Tender Act of 1862 to be constitutional, thus bringing the "Greenback" into great popularity and laying the foundation of a new but ephemeral party. By July 15, 1870, the last seceded State was back in the Union, and the clouds of the reconstruction period had well-nigh vanished.

Liberal Republicans.

Liberal Republican Principles.—Both the Republican and Democratic parties were now to be shaken up by the question of "amnesty to rebels." Many leaders in both parties thought the time had come when general amnesty should be extended to all who had engaged in the war on the part of the South. The Republicans who thus thought met in convention at Cincinnati, May 1, 1872, and nominated Horace Greeley, of New York, for President, on a platform pledging the party to Union, emancipation, enfranchisement; opposition to the reopening of any question settled by the thirteenth, fourteenth and fifteenth amendments to the Constitution; immediate removal of all political disabilities; local self-government with impartial suffrage; civil service reform; modest Government revenue. But the remarkable part of the platform, considering that Mr. Greeley, a lifelong protectionist, was the nominee of the party, was the tariff plank, which simply relegated the question of the tariff to the congressional districts for discussion.

Fusion of Democrats and Liberal Republicans.—The Liberal Republican idea gained rapid headway in several States. It split the Republican party in twain in Missouri, and the Democratic party in Ohio. Accretions were so numerous from both parties, and the general amnesty doctrine was so strong with Democrats, that the Liberal Republican Convention felt it could, by early and discreet action, capture the entire Democratic organization.

In this it counted correctly, for when the Democratic Convention met in Baltimore, July 9, 1872, it accepted the platform and nominees of the Liberal Republicans, with the hope of thus widening the schism in the Republican ranks and crushing the party forever.

The Straight Democrats.—But not all Democrats sympathized with the Liberal Republican movement. A straight-out Democratic Convention was held at Louisville, September 3, 1872, which nominated Charles O'Connor, of New York, for President, on a platform containing a plea for State-rights, and repudiation of the Baltimore convention as a betrayal of the Democratic party into a false creed and false leadership.

Grant Renominated.—The Republicans met in National Convention in Philadelphia, June 5, 1872, and renominated U. S. Grant for President on a platform whose leading planks favored enforcement of the new constitutional amendments, civil service reform, and maintenance of the public credit.

The Prohibition Party.

National Prohibition.—Until 1865, what may be designated political temperance depended on the use of parties as they were found to exist in the States. This localized the temperance issue, and subjected it to the whim of opponents. The time had come for the nationalization of the cause. In 1868 the Grand Lodge of Good Templars moved for "the organization of a national political party whose principles should be prohibition of the manufacture, importation and sale of intoxicating liquors to be used as a beverage." This sentiment was closely reflected by the Sixth National Temperance Convention at Cleveland, July 29, 1868. The next year, during a session of the Grand Lodge of Good Templars at Oswego, N. Y., a call was made for a convention to organize a "National Prohibition party."

Prohibition Nominations.—This Convention met in Chicago, September 1, 1869, with five hundred delegates from twenty States, and launched the new party. The party held its first National Convention at Columbus, Ohio, February 22, 1872, and nominated James Black, of Pennsylvania, for President on a platform declaring that as all existing political parties had proved unwilling to adopt an adequate policy respecting traffic in intoxicating drinks, therefore the Prohibition party pledged itself to maintain the principles of its Declaration and Constitution; that effective State as well as National prohibition is the only means of suppressing traffic in intoxicants; that existing party competition for the liquor vote is a peril to the nation; dissuasion from the use of intoxicants; competency, honesty and sobriety as qualifications for office; no removals from office for political opinions; economy; direct vote for President; sound national currency; labor reform; suffrage without regard to sex; fostering of common schools.

Election of 1872.—All parties were now ready for the campaign of 1872—a campaign peculiar in every respect. Its burdens were chiefly borne by the Liberal Republicans. The result was their overwhelming defeat. They had not captured the Democratic party, for what they gained from it was far more than offset by desertions to the Republicans. Nor had they widened perceptibly the schism in the Republican ranks. As was wittily said at the time, "fusion has resulted in confusion."

The Greenback Party.

Germs of Greenback Party.—In 1873 the country passed through a panic. Cautious financial legislation became necessary. President Grant vetoed a measure increasing the national currency to the extent of $400,000,000, because it tended to inflation at a time when the country was looking toward the resumption of specie payments. A strenuous effort was made by a strong minority of both parties to pass the bill over the veto. The effort failed, but here we have the germs of the "Greenback party."

Rise of Greenbackism.—The rise of this party was encouraged by the stringency of the times, and by the propensity to hold the dominant party responsible for industrial and financial ills. It at first took form and name as "The Independent party," that being best suited for a grouping of all the elements of discontent. But it could not escape the more suggestive name of "Greenback party," since its object was to relieve financial stringency and business depression by using the credit of the Government in the shape of greenbacks, and insisting on a sufficient issue of them to answer the purposes intended. The greenback was then popular and was ere long to be redeemed in gold.

Democratic Alliance with Greenbacks.—But while the inception of the party was in 1873, it received its real impetus in the passage of the Special Resumption act of 1875 by the Republicans. The Democratic party, contrary to its traditions, had arrayed itself against the passage of this act, and was therefore in a position to ally itself with the Greenbackers. This alliance was effected in many States, and it proved to be a very strong union in industrial districts, where the thought of unlimited money was a pleasing delusion.

Campaign of 1876.

Greenback Nominations.—This party was the first to enter the campaign of 1876. It met in National Convention at Indianapolis, May 17, 1876, and nominated Peter Cooper, of New York, for President, on a platform arraigning both Republican and Democratic parties for refusing to foster financial reform and industrial emancipation; demanding repeal of the Specie Resumption act of 1875; insisting upon the United States note (greenback) as a circulating medium and legal tender, and upon the Jeffersonian theory that "bank paper must be suppressed, and the circulation restored to the nation to whom it belongs"; declaring that the Government shall legislate for the full development of all legitimate business; opposing further issue of gold bonds; no further sale of bonds with which to purchase silver as a substitute for fractional currency.

This was a most remarkable platform in view of the strenuous opposition of the Democrats to the passage of the original Greenback act, of the traditions of the party in favor of hard money, and of the historic opposition of Democracy to Government legislation in favor of our industries.

American National Party.—Another party which had already entered the campaign of 1876 was the American National party, which met in mass meeting at Pittsburg, June 9, 1875, and nominated James B. Walker, of Illinois, for President. It favored a Sabbath and prohibition, the thirteenth, fourteenth and fifteenth amendments, arbitration, Bible in schools, return to specie payments, direct vote of the people for President, and opposed secret societies. The Prohibition party, under the name of "Prohibition Reform party," met in National Convention at Cleveland, May 17, 1876, and nominated Green C. Smith, of Kentucky, for President, on the usual platform of principles.

Republican Convention, 1876.—The Republican party met in Convention at Cincinnati and nominated Rutherford B. Hayes, of Ohio, for President. This Convention broke the usual party practice of voting the States as units. It declared in its platform that the United States was a nation, not a league; that Republican work was not done till the Declaration was acknowledged in every State; for protection of all citizens; for redemption of United States notes in coin; for improved civil service; rigid responsibility in office; against sectarian control of schools; for sufficient revenue with protection; against land-grants to corporations; in favor of pensions to soldiers.

Democratic Convention, 1876.—The regular Democratic party met in Convention at St. Louis, June 28, 1876, and nominated Samuel J. Tilden, of New York, for President, on a platform of general condemnation of the Republican party and policy; the language as to the existing tariff being that it is "a masterpiece of injustice, inequality and false pretence."

Disputed Election.—This campaign led to the unfortunate result of a disputed return of electors from three of the Southern States and from Oregon—a result upon which the victory hung. The matter was carried before a special tribunal, called the "Electoral Commission." Its decision was that R. B. Hayes, the Republican nominee for President, had received one hundred and eighty-five electoral votes, and Samuel J. Tilden, the Democratic nominee, one hundred and eighty-four votes. A remarkable feature of this contest was that Republicans and Democrats had reversed their ground as to open and strict construction of the Constitution.

The Bland Dollar.—The Forty-fifth Congress, the first to meet under Hayes' administration, was Democratic in the House and Republican in Senate. Strictly partisan legislation was therefore blocked. This Congress witnessed the introduction of the silver question into politics, in the shape of the Bland bill remonetizing silver and authorizing the coinage of 2,000,000 Bland dollars a month. In the Forty-sixth Congress the Republicans made a determined effort to repeal the Bland silver act, but failed.

Campaign of 1880.

Party Nominations.—In the campaign of 1880 the Republicans were first in the field. They met at Chicago, June 5, 1880, and nominated James A. Garfield, of Ohio, for President. The platform recited the achievements of the Republican party, from the suppression of the Confederacy to the resumption of gold payments, and extended the usual pledges in favor of protection, pensions, internal improvements, etc.

The Convention of the National Greenback party was held at Chicago, June 9, 1880. It nominated James B. Weaver, of Iowa, for President upon a platform adhering to a large legal tender currency; opposition to refunding of the national debt; favoring abolition of national banks, and unlimited coinage of gold and silver, and a graduated income tax.

The Prohibition Reform party met at Cleveland, June 17, 1880, and nominated Neal Dow, of Maine, for President on the usual platform.

The Democratic party met at Cincinnati, June 22, 1880, and nominated General Winfield S. Hancock, of New York, for President, on a platform pledging the party to Democratic traditions and a tariff for revenue only.

Assassination of Garfield.—The result of the campaign was the election of Garfield, with a Republican majority in the House and a tie in the Senate. On July 2, 1881, President Garfield was mortally shot, and he was succeeded by Vice-President Arthur. The Forty-seventh Congress enacted the important tariff bill of 1883, lowering duties. It also enacted the Civil Service Reform Bill introduced into the Senate by Geo. H. Pendleton, Democrat, of Ohio. The elections of 1882 had proven disastrous to the Republicans, and in the Forty-eighth Congress there was a large preponderance of Democrats in the House, but no legislation of political moment was effected. Both parties preferred to stand as nearly still as possible, preparatory to the campaign of 1884.

Campaign of 1884.

Republican Convention.—The Eighth National Convention in the history of the Republican party met at Chicago, June 3, 1884. James G. Blaine, of Maine, was nominated for President, on a platform which commended the party for its achievements; lamented the death of Garfield; endorsed Arthur's administration; favored a tariff for the protection of American industry; denounced Democratic measures in Congress; urged international standard of gold and silver; suggested the regulation of interstate commerce; favored international arbitration; denounced the importation of contract labor; favored civil service reform, liberal pensions, extension of the Navy; insisted on a free ballot and full count in Southern States; passed a pledge to secure to all persons full political rights.

Democratic Convention.—The Democrats met at Chicago, July 8, 1884, and nominated Grover Cleveland, of New York, for President, much against the wishes of Tammany Hall. The platform announced "the preservation of personal rights, equality of citizens before the law, reserved rights of States, supremacy of Federal Government within Constitutional provisions"; that a change of parties was demanded; that the will of the people was defeated by fraud in 1876; that the Republican party was extravagant, and had not kept its pledges to workingmen and soldiers, and in favor of American manufactures; that the Democratic party pledged itself to reform the existing tariff and internal revenue laws, and denounced the existing tariff; that the Government should secure equal rights to all citizens; that there should be no sumptuary laws; that the party favored Civil Service Reform, separation of Church and State, legislation tending to advance labor, an American policy for restoration of American commerce.

Prohibition Convention.—The Prohibition National Convention met in Pittsburg, July 21, 1884, and nominated ex-Governor John P. St. John, of Kansas, for President, on the usual Prohibition platform.

Anti-Monopoly Convention.—As a prelude to the National Convention of the Greenback party, a Convention of Antimonopolists met at Chicago, May 14, 1884, which nominated Benjamin F. Butler, of Massachusetts, for President. When the Greenback party met in Chicago, May 28, 1884, it also nominated Butler for President, on a platform demanding the issue of legal tender notes in quantities sufficient to supply actual demands of trade and commerce in accordance with increase of population.

Democratic Victory.—The campaign opened with great personal bitterness, and was conducted with an acerb spirit to the end. Mr. Blaine threw into it all his intense personalism, but the result was his defeat by the narrowest of margins. At the same time the House was carried by the Democrats. At this time there were two wings to the Democratic party, one favoring a tariff for revenue, with incidental protection, the other standing squarely against the protective idea.

Cleveland's 1887 Message.—The new President-elect, Mr. Cleveland, at first favored the former wing led by Mr. Randall, but he turned, and in his message of 1887 announced his tariff reform, or free trade, sentiments, which became the party doctrine for future campaigns. With their majority in the Forty-ninth Congress, the Democrats achieved but little party legislation. In the Fiftieth Congress the House still had a Democratic majority, while there was a Republican majority of one in the Senate. The former passed the Mills Tariff Bill by a slender majority. It was defeated in the Senate. Nothing seriously affected the status of the two leading parties during Mr. Cleveland's first term of office.

Campaign of 1888.

Conventions of 1888.—The Democrats entered the lists first with their National Convention at St. Louis, at which President Cleveland was renominated by acclamation, on a platform reaffirming that of 1884, and inveighing against the Republican policy of accumulating a surplus in the treasury.

The Republicans met in National Convention at Chicago, June 10, 1888, and nominated Benjamin Harrison, of Indiana, for President, on a platform strongly favoring the protective idea and accepting the issue of free trade as presented by the Democrats.

The Prohibition party met at Indianapolis, and nominated Clinton B. Fisk, of New Jersey, for President, on a distinctive party platform.

The United Labor party placed R. H. Cowdrey in the field as its candidate for President. The Greenbackers, now figuring faintly in political affairs, united with the Labor Reformers, and nominated Alson J. Streeter for President. The American party nominated James L. Curtis for President. The Equal Rights party nominated Belva A. Lockwood for President.

Harrison's Administration.—The campaign was one largely of discussion, the leading issue being that of Tariff *vs.* Free Trade. The result was the election of Harrison, the Republican nominee, together with a Republican House of Representatives. The revolution of 1884 was now reversed. The Harrison administration was signalized by the passage of the McKinley Tariff bill of 1890, involving the principle of reciprocity, the Administrative Customs Act and the Sherman Silver bill changing the actual coinage of silver, as provided for in the Bland bill, to the purchase of 54,000,000 ounces of silver in a year—the amount of the American product—and the issuing of silver certificates against the bullion deposited.

Democratic Policy.—The Democrats were not daunted by the defeat of Tariff Reform in 1888, but pressed the issue before the country with sufficient success in the elections of 1890 to win a large majority in the Fifty-second Congress. This majority proved to be too large, unsophisticated and unwieldy. Such imposing questions as those appertaining to Samoa, the murder of Italians in New Orleans, the Chilian Imbroglio, overshadowed everything narrower. The Congress achieved nothing outside of routine and such few passing things as would contribute to success in the approaching campaign of 1892. The "pop-gun" method of doing away with the Tariff act of 1890 proved unsatisfactory to even its advocates.

Free Silver Coinage.—But there was one question that would not down in this Congress. That was the free coinage of silver. It bobbed up at every turn to annoy the Democratic majority. The failure of silver producers to realize their expectations under the Sherman act of 1890, the growing desire on the part of the dissatisfied to change industrial and trade conditions in the South and West, had given the silver question a new and decidedly party turn. Democratic State conventions had almost unanimously declared in favor of "free and unlimited coinage of silver." This was but an echo of the Greenback doctrine, now on its wane. Mr. Bland, recognized leader of the silver agitation, formulated his "Free Silver Coinage Bill" and urged it with his tremendous ability. The belief that it could fail in a Democratic House was not to be entertained. But what was his surprise to find that the Eastern Democrats had turned in with the Republicans, and that the vote on his bill was a tie. Though the Speaker, Mr. Crisp, broke the tie in favor of the bill, it was afterwards defeated by dilatory motions.

A Do-Nothing Congress.—In comparison with the Fifty-first Congress, the Fifty-second passed into history as the "do-nothing Congress." It was frequently driven to protest against itself for filibustering tactics. Owing its existence largely to "The Billion Dollar" extravagance of its predecessor, it exceeded that extravagance by a total of $44,000,000.

Campaign of 1892.

Republican Convention.—The Republican party held its National Convention at Minneapolis, **June**

7, 1892, and renominated President Harrison on a platform favoring American Protection, bimetallism with legislative restrictions, free ballot and honest count, extension of foreign commerce, enforcement of the Monroe Doctrine, separation of Church and State, efficient protection to railroad employes, reduced postage and extension of free mail delivery, Civil Service, Nicaragua Canal, admissions of Territories as States, the World's Fair, pensions; and opposing Southern outrages, pauper immigration, trusts and intemperance.

Democratic Convention.—The Democrats met at Chicago, June 21, 1892, and renominated Grover Cleveland on a platform pledging the party to the principles of Jefferson, to opposition to the "Force Bill"; denouncing protection as a fraud and unconstitutional; the McKinley act as the "culminating atrocity of class legislation"; reciprocity as a fraud; declaring opposition to trusts; to giving away of public lands to railroads; to the coinage act of 1890; to State banks; to Republican foreign policy; to pauper immigration; to Harrison's administration; favoring Mississippi improvements, Nicaragua Canal, popular education, admission of new States, protection of railway employes, abolition of the "sweating system."

Prohibition Convention.—The Prohibitionists met in National Convention at Cincinnati, June 30, 1892, and nominated General John Bidwell for President, on an elaborate platform expressive of the party's views.

The People's or Populist Party.

Rise of the People's Party.—A new party had been for some time in process of quiet growth, formed of those who thought that the Government had not been sufficiently mindful of the welfare of the industrial classes. It had formulated its doctrines at a meeting at Ocala, Fla., and was sufficiently advanced to take its place in the campaign of 1892. This it did in National Convention at Omaha on July 4, 1892, by the nomination of General James B. Weaver, of Iowa, for President. The party was recruited from both the leading parties, and gave as reasons for its existence those found in the preamble to its platform, to wit:—that corruption dominates the ballot box, the legislatures, the Congress, and touches even the ermine of the bench. The people are demoralized, newspapers largely subsidized or muzzled, public opinion silenced, business prostrated, homes mortgaged, labor impoverished, lands concentrated in the hands of capitalists, workmen denied the right of organization, imported pauperized labor beating down wages, the fruits of toil stolen to build up colossal fortunes, the national power to create money appropriated to enrich bondholders, a vast public debt funded into gold-bearing bonds, silver demonetized, the currency abridged to fatten usurers, bankrupt enterprise and enslave industry.

People's Party Platform.—The preamble further charged both political parties with grievous wrongs and inability to right them, with engaging in sham political battles over tariffs for the sake of plunder, and with proposing to sacrifice homes, lives, and children on the altar of Mammon. The platform which followed contained a belief that a union of the labor forces of the country was necessary to its salvation, that wealth belonged to him who created it, and that the time had come when the Government should own and operate the railroads, telegraphs and telephones. On the question of finance the demand was for a safe, sound and flexible legal tender currency, for free and unlimited coinage of silver at a ratio of sixteen to one, for a graduated income tax, for limitation of State and National revenues, for postal savings banks, for an eight-hour law, for civil service regulations.

Democratic and Populist Coalition.—These plain charges and broad demands sufficed to touch deeply an immense contingent of both parties in the far Western States, and one of the curiosities of the campaign of 1892 was a coalition of Democrats and Populists in many States with a view to securing Democratic electors. The growth of this new party in the Southern States was phenomenal. In more than one of these States it swept away old régimes and installed itself in governor's chairs and legislatures.

Democratic and Populist Victory.—The result of the national campaign of 1892 was a surprise to both the leading parties. There had been but little excitement, and nothing more than a quiet confidence manifested. But it was found that the labor vote had revolted against its employers, and that the Populist strength had proved enormous beyond all calculation, having swept several Republican States of the Northwest from their political moorings. Ex-President Cleveland was elected, and with him a large majority of Democrats in the Fifty-third Congress, the strength of parties being two hundred and twenty-one Democrats, one hundred and twenty-five Republicans, ten Populists. The Senate was also Democratic, the party strength being forty-three Democrats, thirty-seven Republicans, and five Populists.

Fusion and Confusion.—This was really a greater political revolution than that of 1884 had been. The Democratic party found itself in possession of all branches of the Government for the first time in thirty-two years, and it could apply its principles at will. But though a triumphant, it was to be by no means a happy party. Its alliances with Populists encouraged the free silver sentiment in its ranks, and out of fusion was to come confusion, as so often happens in party history.

Panic of 1893.—A feeling of discontent rested heavily on the country, and a sense of danger haunted commercial centres. Gold went abroad rapidly. The Treasury reserve became depleted. Exports fell off. Expenditures exceeded receipts. The Secretary of the Treasury intimated the probability of redeeming silver certificates in silver. At once solid dread fell on the banks and capitalists. Credits shrivelled, banks closed, corporations and firms went to the wall, business demoralization became well-nigh universal, mills closed, labor went idle. The period was one of panic, or rather of that awful suspension of faith and credit which is usually worse than panic, because it is less treatable by remedies and of longer duration. It was to rest like an incubus on the entire second administration of Mr. Cleveland.

Special Session of Congress.—It was thought that the Sherman Silver Act of 1890 had something to do with the disastrous times. Congress was called in special session, August 7, 1893, and the purchasing clause of the bill was repealed, but not without strenuous opposition by the free silver coinage men. Credit was somewhat fortified, but the industrial panic still prevailed and even assumed more disastrous forms. It was evident that the cause had not been rightly guessed.

Wilson Tariff Bill.—Amid this gloom the Fifty-third Congress met in regular session, December 4, 1893. Its meeting was rendered more sombre by the fact that a counter-political revolution had set in, in 1893, less diffused but more emphatic than that of 1892 had been. Democratic States, like New York, were swept by the Republicans by large majorities. It was evident that the country was in violent reaction. Still the Congress went actively about the work of substituting a new Tariff act for that of 1890. The bill, which became known as the "Wilson Bill," was framed very far along the approaches to free trade, so much so indeed that the Democrats in the Senate forced into it many material amendments so as to make it secure more revenue. It was passed, but never received the President's signature. It became a law not only without the President's endorsement, but with his expressed disapprobation. The Democrats had now applied to the situation one of their most heroic remedies—had placed the country on a new economic plane. They had even incorporated in the Tariff the Populist doctrine of an income tax. This the Supreme Court, by a majority of one, decided to be unconstitutional.

National Treasury a Borrower.—All the while the Treasury condition was growing worse. The gold reserve could not be preserved, and the deficit was growing daily. In order to meet expenses and preserve the national credit, a resort was had to borrowing. Fifty million dollars worth of bonds were sold to replenish the Treasury. This did not last long, and another, and still a third issue, became necessary, making a total of $262,000,000 in a little over a year. This use of bonds in order to keep the Treasury in funds was highly exasperating to free silver coinage sentiment in the Democratic party, while the country at large felt great disappointment over the fact that the Wilson tariff was falling so far below the expectations and promises of its projectors in providing revenue sufficient for the needs of Government in time of peace. Added to this, Mr. Cleveland had been unfortunate in his foreign policy, and had antagonized the patriotic spirit of the people. It was hardly surprising, therefore, that the political reaction which began in 1893 should assume fuller proportions in 1894. The large Democratic majority in the House was overturned by an equally large Republican majority in the Fifty-fourth Congress. It was therefore to a hostile body that President Cleveland made his plea for financial relief in his message to the Fifty-fourth Congress. The House came to his rescue with a provisional tariff bill designed to increase the Custom's revenue sufficiently to meet the needs of the Treasury. But this could not be passed in the Senate, owing to the attitude of parties there, the free silver coinage sentiment holding a balance of power, and being determined to fix a recognition of its principles on all the legislation it could.

Campaign of 1896.

The Free Silver Leaven.—The shapings of the campaign of 1896 proved to be most interesting. The free silver coinage sentiment which, as we have seen, the Populists formulated in their platform of 1892, but which had been a prolific source of agitation long before, had well-nigh taken possession of the Democratic party in the Western and Southern States, and had come to the front in the Republican party of the mining States sufficiently to threaten their allegiance. So conspicuous and pervading had the sentiment become that the name "Populist" was almost lost in that of "Free Silverite" as a party cognomen.

Fear of Free Silver Doctrine.—While the free silver coinage sentiment was thus affecting both the Republican and Democratic parties in kind, it was not doing so in degree, for its invasion of the Democratic ranks was where they had been strongest, while it penetrated but little into the strong Republican States. The Democrats stood in awe of it, for the reason that they had coquetted with and encouraged it in 1892, and for the additional reason that the administration had directly and bitterly antagonized it by seeking to make all that constituted its opposite a part of administrative policy. The Republicans had less fear of it, for the reason that however rabid the sentiment might become in the States that were most affected by it, the more important principle of protection would be there to modify or thwart it.

Prohibition Convention.—The first party to open the campaign was the Prohibition party, which met at Pittsburg, May 27th, and nominated Joshua Levering, of Maryland, for President, on a single plank platform setting forth the principles of the party. This Convention witnessed a bolt led by the free silver coinage men, on account of their failure to secure the insertion of a free silver plank in the platform. The bolters set up a new party and a separate ticket.

Nomination of McKinley.—The second National Convention was that of the Republican party, which met in St. Louis, Tuesday, June 16, 1896, being the eleventh in the history of the party. Wm. McKinley, of Ohio, was nominated for President; Garrett A. Hobart, of New Jersey, Vice-President.

The platform declared for ample protective tariff and for the maintenance of the existing gold standard of money. The minor points were endorsement of reciprocity in trade with foreign nations, the reassertion of the Monroe Doctrine, declaration of sympathy for Cuba, educational tests of immigrants, and a recognition of the political rights of women.

Free Silver Bolters.—The failure of the radical free coinage men to secure a plank in the platform pledging the party to free silver coinage at the ratio of 16 to 1 led to a bolt, which portended the loss of several of the States interested in silver mining. The vote on the financial feature of the platform stood 812½ in favor and 110½ against.

Democratic Convention.—The National Convention of the Democratic party met at Chicago, July 7, 1896. The battle between the contentious wings was the fiercest in the history of the party. The sound money men, representing the Eastern States with one or two exceptions, were opposed by the free silver coinage men, representing the Western and Southern States.

At the very start of the Convention the silver men organized by electing Senator Daniel, of Virginia, as Chairman over Senator Hill, of New York, by a vote of 556 silver men to 349 gold men.

Triumph of Free Silver Wing.—The platform was adopted by 629 "ayes" to 303 "noes." It declared for the free and unlimited coinage of both gold and silver at the present legal ratio of 16 to 1. It opposed the issue of interest-bearing bonds in times of peace. It declared that Congress alone had the power to coin and issue money, and demanded that the power to issue notes be taken from national banks. It was held that tariff duty be levied for the purpose of revenue and without discrimination between class and section. It opposed the importation of foreign pauper labor. It extended sympathy to Cuba, and opposed life tenure in public office, and other declarations of minor importance.

William Jennings Bryan, of Nebraska, was nominated for President on the fifth ballot, he receiving 528 out of 676 votes. Arthur Sewall, of Maine, was nominated on the fifth ballot for Vice-President.

National Prohibition Party.—The National party was organized at Pittsburg, Pa., May 29, 1896, and was formed of those who bolted the Prohibition Convention at that city two days before. There were present over 300 men and women, representing 27 States. They had previously acted with the Prohibition party, but withdrew because that party in its Convention had adopted a platform which ignored every issue of the day except the prohibition of the liquor traffic. They named for President Charles E. Bentley, of Nebraska, and for Vice-President James H. Southgate, of North Carolina.

Populist Merger.—The second National Convention of the People's or Populists' party met at St. Louis, July 22, 1896. It was composed of 1,322 delegates. The Convention nominated for President W. J. Bryan by a vote of 1,042 to 321. For Vice-President they nominated Thomes E. Watson, of Georgia.

Their platform demanded the free and unrestricted issue of silver in the ratio of 16 to 1, declared in favor of graduated income tax, denounced the sale of bonds and the increase of the bond debt, defined their position in reference to the

Government ownership of railroads, land monopolies, and other points of minor importance.

The National Silver party met in its first Convention at St. Louis, July 22d, at the same time as the People's party, with which it was closely allied politically.

It supported the Democratic platform adopted at Chicago and the candidates nominated thereon.

National Democratic Convention.—The National Democratic party, composed of the bolters from the Chicago Democratic Convention held in July, called a Convention at Indianapolis September 2, 1896. The delegates numbered 882, comprising many who held close relation with President Cleveland and his administration. It was a harmonious gathering, and nominated for President Senator John McAuley Palmer, of Illinois, and for Vice-President General Simon Bolivar Buckner, of Kentucky.

The Convention adjourned without the thought that either of its candidates would be elected or even carry a single State, but with the conviction that it had taken the most effective means in its power to defeat the Chicago Democratic candidates, Bryan and Sewall.

In this platform they declared chiefly for the gold standard and commended the policy of President Cleveland.

McKinley's First Administration.—The result of the National campaign of 1896 was the election of McKinley and Hobart, the Republican candidates.

During the four years of their administration the country made history very fast. Tariff measures and the general prosperity resulting from natural and other causes ran up the Treasury balance to nearly $500,000,000 towards the close of the term, the greatest in the nation's experience. As a direct result of sympathy with Cuba, the Spanish-American war occurred, resulting in substantial triumph for our Army and Navy and the freedom of Cuba. This war brought up new questions, new and grave responsibilities at home and abroad, resulting in the purchase of the interest of Spain in the Philippine Islands for $20,000,000 and the subsequent guerilla warfare of the insurgents, who refused to acquiesce in the deal with Spain. This gave birth to new questions regarding imperialism, war taxation, and other issues which had to be met in the campaign of 1900. The supremacy of the United States on land and sea placed her in the foremost rank of nations, and gave us an influence in foreign affairs never before possessed by us.

The Chinese Problem.—As the administration drew to its close, the partition of China among the great powers, and the protection of our ministers and foreign missionaries from massacre by the hostile Chinese, bid fair to grow into quite an issue among the great political parties for and against foreign colonies and imperialism.

Campaign of 1900.

Conventions and Platforms.—In the Presidential campaign of 1900 the Populists were first to hold their Convention at Sioux Falls, S. D., May 9, and nominated William J. Bryan for President and Charles A. Towne, of Minnesota, for Vice-President. The advanced wing of the Populist, called for their radical views "Middle-of-the-Roaders," dissatisfied with the spirit of the conservatives in nominating Bryan, a Democrat, called a convention in Cincinnati, on the same date, at which Wharton Barker, of Pennsylvania, was named for President, and Ignatius Donnelly, of Minnesota, was nominated for Vice-President. Following these came the Republican Convention at Philadelphia, June 19th, at which William McKinley, of Ohio, and Theodore Roosevelt, of New York, were unanimously selected as standard bearers of the party. The platform declared redemption of all promises made by the party; pointed to the successful issue of the Spanish-American War, and to the widespread prosperity of the country as evidences of the capable and wise administration of President McKinley, and promised such self-government to the Filipinos, after suppression of the insurrection, as the capacity of the natives should justify.

Bryan Renominated.—The National Democratic party met in convention at Kansas City on the nation's birthday, July 4th, where, after a declaration of principles, William J. Bryan was nominated for President by acclamation, and Adlai E. Stevenson, of Illinois, was selected as the Vice-Presidential candidate. There was considerable opposition manifested in the committee meetings over the question of reaffirmation of the Chicago platform of 1896. Nearly all the delegates had been instructed to vote for Bryan, so that no other candidate was a possibility, and occupying such a dominant position, Bryan insisted upon a reiteration of the 16 to 1 plank. A considerable defection had taken place in the Democratic party on the silver question in 1896, going so far as the nomination of an independent candidate committed to the gold standard. A large majority of those who left the party in that year sincerely desired to return to their former allegiance, feeling that the money standard was now settled beyond the power of Democrats to change in four years, and offered to do so upon the single condition that the platform of 1900 omitted repetition of the 16 to 1 plank previously adopted. This small concession nearly all the party leaders were willing to make, and a large majority thought it best to do so even as a politic measure, but Bryan stoutly persisted that while he would be content with a simple reaffirmation of all the other planks of the Chicago platform, the full text of the 16 to 1 declaration must be repeated and made a distinct feature of the new declaration of party principles. This arbitrary and seemingly inconsistent act of coercion, opposed as it was, too, by the strongest leaders in the party, and by the most faithful adherents of bimetallism, at the ratio of 16 to 1, created no little friction, which was somewhat relieved by the insertion of a clause in the platform declaring Imperialism to be the paramount issue in the campaign. The party thus went before the country with a bold announcement of purpose and a severe arraignment of the McKinley administration, opposed the war policy of the Republicans, the career of conquest in the Philippines, the discrimination against Porto Rico trade, opposition to trusts, favored monetary reform, independence of Cuba, and the abolition of war taxes.

Socialist and Other Parties.—The Social Democrats nominated for president Eugene V. Debs, of Indiana, and declared against private ownership of the means of production. The Socialist Labor party nominated Joseph F. Maloney, of Massachusetts, and re-adopted their platform of 1896, calling on wage-workers to organize for political effect. The Union Reform party nominated Seth H. Ellis, of Ohio, with a call for direct legislation under the principle of "initiative and referendum."

Election (1900) Results—McKinley's Death—Roosevelt's Succession.

Results in 1900.—The result of the November (1900) election was the choice of McKinley and Roosevelt by a majority exceeding that of 1896, the vote in the electoral college being—McKinley, 262; Bryan, 155; the popular vote—McKinley, 7,208,224; Bryan, 6,358,789. Of the trans-Mississippi States which had gone Democratic in 1896, Kansas, Nebraska, South Dakota, Utah, Washington and Wyoming returned (1900) to the Republican party. McKinley's inaugural committed his second administration to the industrial, commercial and fiscal policy he had pursued in the first. As to foreign relations, he insisted on the wisdom of that policy which had rescued the Chinese legations in Peking, stayed the dismemberment of the empire by the powers, secured for commerce the "open door," and resulted in peace by the fixing of an indemnity within the ability of China to pay. As to the Philippines and other insular possessions, he was emphatic in the continuance of a policy of permanent retention, of suppression of disorders, and of introduction of American forms of government and institutions, with the help of the natives themselves, as fast as they showed willingness and fitness. Later, in his speech at the Pan-American Exposition, Buffalo, N. Y., delivered on September 5, 1901, the day before his assassination, he broached the doctrine that the era required fuller recognition, if not a practical application, of commercial reciprocity whenever and wherever it would not endanger the principle of protection.

Assassination of McKinley.—While attending the Pan-American Exposition, and on the occasion of extending a public reception in its Music Hall, September 6, 1901, President McKinley was mortally shot by an anarchist of Polish extraction, named Czolgosz, and he died on September 14, 1901. His death was a cause of deep regret and mourning throughout the nation and the civilized world, for few public men had ever inspired greater respect for wise statesmanship and civic virtues. His assassin was promptly tried and electrocuted.

Roosevelt's Accession and Administration.—President McKinley was succeeded by Vice-President Roosevelt, to whom the oath of office was administered in Buffalo on September 14, 1901. He immediately announced his intention to retain the McKinley cabinet, and to continue the policy of his predecessor. But breaks by resignations soon began to come in the cabinet. These were not due to lack of harmony, but to the opportunity afforded by a change of executives. Postmaster-General Charles Emory Smith was succeeded, January 15, 1902, by Howard C. Payne, of Wisconsin; Secretary of the Treasury Lyman J. Gage, February 1, 1902, by Leslie M. Shaw, of Iowa; Secretary of the Navy John D. Long, May 1, 1902, by William H. Moody, of Massachusetts.

Fifty-seventh Congress Opening.—The Fifty-seventh Congress opened its first session Monday, December 2, 1901. In the House there were 198 Republicans, 153 Democrats, 5 Populists. In the Senate there were 56 Republicans, 29 Democrats and 3 Independents. The House organized by the re-election of David B. Henderson, of Iowa, as Speaker.

Political Situation.—The interval between the close of the Fifty-sixth Congress, March 4, 1901, and the opening of the Fifty-seventh Congress, December 2, 1901, had witnessed elections of more or less moment in several States, but no revolution of any magnitude in political sentiment. In general the respective party majorities were those of an off year, losses and gains being due to local rather than national causes. If any substantial tendency were marked, it was in those trans-Mississippi sections where Populism had prevailed. These election results showed a gradual recession of the tide which had swept so many of them from their Republican moorings. The assassination of President McKinley, in September, had served to hush noisy partisanship, and the pervading gloom offered no encouragement to revolutionary politics. A local exception was, however, found in the defeat of Tammany and overthrow of the Croker régime in New York City, coupled with his abdication of leadership and his retreat to England.

Foreshadowed Situation.—Yet there was much in the political and civil atmosphere to betoken the probable lines of public sentiment and the likely course of public measures. President Roosevelt's first message was looked forward to with interest by all parties, and, on the part of the Republicans, with the hope that it would vindicate his pledge to shape his administration on McKinley lines. Already this had been in part done by the retention of the McKinley cabinet, by the spirit of executive appointments, by maintainment of foreign relations, and, especially, by the continuance of the Government's attitude toward its insular possessions.

Advance of Public Sentiment.—It could hardly be doubted that public sentiment had moved forward sufficiently to sanction measures for the construction of an isthmian canal; for now the nation was confronted with its Hawaiian and Philippine possessions, its new commercial relations in the East, and its necessities for control of the Pacific. And it was so as to a Pacific cable, though with a debatable phase as to whether it had better be a Government or a private enterprise.

Trend Toward Reciprocity.—Again, it had become pretty clear that while the Republican party was in no mood to open tariff discussion, it was ready to take ground in favor of reciprocity wherever such could be done without danger to the principle of protection. Two things helped to encourage such a stand: 1. A manufacturers' convention, composed of members of all parties, had been held in Washington only a few weeks before the opening of the Fifty-seventh Congress. In this convention reciprocity became a prime question. It was expected that discussion of this question and action upon it would witness the usual wide divergence of party sentiment. But in the adoption of the final resolutions the greatest unanimity prevailed, not only in favor of reciprocity as a doctrine, but also that in its practical application it should never be permitted to affect injuriously the benefits derived from protection. 2. It was keenly felt that the nation stood in such relations to Cuba as to be morally bound to encourage her at a time when she was about to try on the experiment of new and independent government, and when she was suffering from business and planting depression. Under the stimulus of this sentiment, the Republicans, joined by a large Democratic contingent, came to favor in Congress a Cuban reciprocity measure, by which Cuban agricultural products—sugar especially—should be admitted into the United States at reduced tariff rates, in turn for like favor to be extended by Cuba to exports of the United States. This became an administrative measure, and had to be handled with great tact to avoid party ruptures, it being opposed by all the beet and cane sugar, tobacco and tropical fruit-growing interests. It was equally evident that the Fifty-seventh Congress could not escape discussion of the perplexing problems growing out of a treasury surplus, insular governments and their relations, ship subsidies, trusts, a permanent census bureau, etc.

Roosevelt's First Message.—This anxiously looked for document was presented to Congress on December 3, 1901. It opened with a touching tribute to his lamented predecessor, and was then directed rather to issues uppermost in the public mind than to the mere routine workings of government. Anarchism was denounced, and the exclusion of anarchists from the country recommended. Great fortunes were not due to legislation, but to natural causes operating alike in all countries. Corporations should be regulated if they worked to the public injury. The Chinese exclusion law should be immediately re-enacted. The condition of the merchant marine calls for immediate remedial action by Congress. Reciprocity must be treated as the handmaid of protection. Forest preserves should be set apart forever for the use and benefit of the people. Government should construct and maintain irrigation reservoirs as it does other public works. Government for the Philippines should be made honorable to our nation by making it of the highest benefit to the Filipinos themselves. No single great material work is of such consequence to the people as the construction of an isthmian canal. The Monroe Doctrine should remain the cardinal feature of our foreign policy. The Navy is the only means of making our insistence upon the Monroe Doctrine anything but a subject of derision. It is not necessary to increase the Army. The merit system of appointments is as democratic and American as the common school system. Indians should be treated as individuals—like white men. The "open door" in China is advocated with all that it implies. No citizens deserve so well of the Republic as the veterans.

The message was favorably commented upon by all parties for its scope and grasp of subjects, earnest expression and excellence of literary style.

Schley Controversy.—This unfortunate controversy exercised naval, political and civic circles from the date of the destruction of Cervera's fleet off Santiago, July 3, 1898. After the Navy Department approved of the findings of the Court of Inquiry into the conduct of Commodore Schley, he (then a rear-admiral) appealed to President Roosevelt. The President sustained the findings of the Court where they were unanimous, and as to the question of who was in command at the destruction of Cervera's fleet, he decided that as each vessel commander fought without orders from anyone, it was a "captain's fight." Immediately after this decision, March 21, 1902, the Naval Committee of the House, to which certain bills and resolutions in Schley's behalf had been referred, made a report recommending that all further action in the matter be discontinued.

Measures of the Fifty-seventh Congress.—One of the earliest matured measures of the Congress was that of tax-reduction. The taxation incident to the Spanish War had been reduced some $40,000,000 a year by the Fifty-sixth Congress, still the Treasury showed a surplus which warranted the Secretary of the Treasury in recommending a further reduction of some $50,000,000 to $60,000,000. The Congress took advantage of the occasion to abolish practically all the remaining Spanish War taxation, thereby making an annual reduction of some $75,000,000 to $78,000,000.

Permanent Census Bureau.—A bill for the establishment of a permanent Census Bureau was passed by both Houses without party divisions.

Cuban Reciprocity.—The Cuban reciprocity measure excited heated debate in the House of Representatives, where its crucial feature, the reduction of 20 per cent on raw sugar imported from Cuba, was violently opposed by the beet and cane sugar interests of the United States. Though it became an administration measure, this opposition, largely Republican in principle, succeeded, with Democratic aid, in forcing an amendment to the measure abolishing the differential duty on imported refined sugars. After succeeding in affixing this amendment, the Democrats then threw their strength to the passage of the amended bill, which, on final vote, received a majority of the Lower House. The Democratic claim was that by their action they had successfully used the reciprocity club to deal a blow at the principle of protection; while the beet-sugar Republicans claimed that by their action they had loaded the bill with an amendment so obnoxious as to secure its certain defeat in the Senate, whither it was immediately sent, and where it underwent lengthy and animated discussion, with the result that it finally failed of passage.

Financial and Industrial Conditions.—The report of the Secretary of the Treasury for the fiscal year ending June 30, 1901, showed a total of receipts the largest in the history of the Government. They amounted to $587,685,338, or $20,721,099 in excess of those of 1900. For the same year the Government expenses were $509,967,353, leaving a surplus of $77,719,985. These expenditures showed an increase of $22,253,561 over the previous year. In 1900 the people were enjoying the largest circulation of money ever before placed at their disposal, the grand total being $2,055,150,998, or $26.94 per head. Exports for 1900 reached $1,394,483,082, and for 1901 approximately $1,500,000,000, while the imports for 1900 were $849,941,184, and for 1901 $925,609,873. In 1901 the savings banks numbered 1,007, with 6,373,098 depositors and $2,601,189,291 of deposits. Like enormous and unprecedented totals represented the deposits and resources of national banks, clearings of the clearing houses, mineral wealth, agriculture and manufactures, as shown by the census figures of 1900 and the statistics of 1901 and 1902.

Chinese Question.—The complications with China which had grown out of the Boxer uprising, and which had more or less affected political sentiment, were adjusted by December, 1901, on a basis of indemnity, payable by China, satisfactory to the country.

Philippine Government.—The capture of Aguinaldo, leader of the Philippine insurgents, in 1901, the virtual cessation of rebellion in the archipelago; the material reduction of the number of the American forces in the islands; the institution of civil government under Insular Governor William H. Taft, July 4, 1901; all these served to gratify the adherents of the existing policy of the administration and, perhaps, to strengthen the position of the Republican party.

Porto Rico.—The knotty Porto Rico problem which had excited acrimonious party debate in the Fifty-sixth Congress underwent gradual legal solution in the highest courts, and by 1902 had passed out of the domain of partisan politics.

Inter-Oceanic Canal.—Preparatory to entering upon the project of an isthmian canal, the Hay-Pauncefote treaty was negotiated, signed and presented to the Senate for confirmation in February, 1900. It was rejected, because it did not sufficiently abrogate the Clayton-Bulwer treaty of 1850. A second Hay-Pauncefote treaty was negotiated and presented to the Senate, December 4, 1901. This proved satisfactory and was confirmed. The Fifty-seventh Congress was then ready to act. A commission had reported favorably on the Nicaragua route. The House made haste to pass a bill authorizing a canal by way of Nicaragua and Costa Rica. The vote in the House was well-nigh unanimous. The bill went to the Senate, where it was held up by an offer on the part of the French Panama Company to sell its interest in the partly constructed Panama Canal for $40,000,000. The Isthmian Canal Commission was reconvened and asked to make a second, or supplementary report. Going over the ground again, with the French offer in view, the shortness of the route, the lesser cost of construction, it changed its former conclusions to a report in favor of the Panama route. Debate in the Senate on the House bill was carried on upon the line of a choice of routes, rather than on the merits of the undertaking, for politics were quite nearly eliminated from the question. The result was a bill enacted by both Houses and signed by the President authorizing a canal via the Isthmus of Panama, on condition that the President and his advisers could secure a sound title from the French Company and satisfactory concessions from the Colombian Government.

Philippine Questions.—All measures introduced into the Fifty-seventh Congress relative to the Philippines led to heated and lengthy party debate, in which the Republicans held to their position of retaining the islands and formulating such government for them as the natives were found susceptible of enjoying, and of participating in as fast as they became capable. The Democrats stoutly opposed the Republican position, and advocated withdrawal from the islands as soon as the United States had established peace therein, provided for the election of a Philippine Constitutional Convention, assured the fulfillment of the Paris treaty and organized an independent Philippine government. Final withdrawal was to be made with a guarantee of the future protection of the United States. The Republicans facetiously dubbed this policy "the policy of scuttle." The Democrats formulated their policy into a platform paragraph, and it found place in the platform of several of the States preparatory to the Congressional elections of 1902. In their oposition to the Republicans in both Houses of Congress they introduced into their debates violent attacks on the Army for alleged cruelties in the Philippines, a course which reacted on them before the public, and especially in view of the fact that the President insisted on the prompt trial and punishment of all who stood charged with violating the humanities. A Philippine tariff was the first of the insular measures the majority succeeded in passing. It passed the House December 18, 1901, by almost a strict party vote—163 to 128. In the Senate the heated debate on it led to a personal assault by Senator Tillman, of South Carolina, on his colleague, Senator McLaurin, which led to their reprimand by the Senate. The bill passed the Senate February 25, 1902, again by a party vote, and was signed by the President March 8, 1902. It reduced the duties of the Dingley act some 25 per cent on all goods imported from the Philippines, and provided for a rebate upon all goods imported from the United States into the Philippines equal to any export tax levied in the Philippines. A second Philippine measure before the Fifty-seventh Congress was one creating a form of insular government. This also excited lengthy partisan debate, and was carried by a party vote. It embodied the forms mapped by Governor Taft, and under its provisions he proceeded to act. In pursuance of it, President Roosevelt issued, July 4, 1902, a proclamation extending amnesty to Filipino offenders.

Cuba.—On May 20, 1902, the United States withdrew its protectorate over Cuba, and it started on an independent career by the inauguration of President Palma. What should have been a happy relief proved a source of anxiety, for it was thought by President Roosevelt that reciprocity of commerce was due to the new republic by the United States. A measure was introduced into the House looking to reciprocal trade, but, as already stated, it met the hostility of the cane and beet sugar growers in the United States and the President found himself with a divided party on his hands as to the question under consideration. However, the bill passed the House, obnoxiously amended, and it eventually died in the Senate.

Trusts.—Those vast aggregations of capital, such as the United States Steel Corporation, the Northern Securities Company, the alleged "Beef

Trust," etc., whose formation characterized the years 1901-1902, led to considerable political anxiety. The disposition of Democrats was to turn them to party account during the Congressional campaign of 1902, but in this they were somewhat timid, for the reason that, when in power, they had failed to enact anti-trust legislation; and, again, President Roosevelt had made it part of his administrative policy to test the validity of the trusts in the courts of law.

Strikes.—The strikes of 1901, ranking as of a general kind, were those of the Amalgamated Association of Iron Workers, the Engineers and Firemen of the Anthracite Coal region, the Draymen and Dockworkers of San Francisco, the Draymen of Boston, the International Association of Machinists. In 1902 the most appalling strike was that of the anthracite coal miners, which was carried on from the middle of May to the middle of October, with losses estimated at $140,000,000 to the respective sides, and with intense privation to the public. It was finally adjusted through the intervention of President Roosevelt on behalf of the great third party—the suffering public—by reference of the contentions to a commission of mediation, appointed by the President, the strikers in the meantime to go to work. It could not be said that any of these strikes seriously affected political situations, though incidentally contributing to lack of enthusiasm at the polls.

Work of Fifty-seventh Congress.—The first session of the Fifty-seventh Congress ended July 1, 1902. It had been a working Congress, with a sufficient Republican majority to sustain the administration in its vital measures. Among its important enactments was that repealing the Spanish War taxation; tariff and civil government bills for the Philippines; extension for ten years of the Chinese Exclusion Act; regulating the manufacture and sale of oleomargarine; establishing a permanent census bureau; a river and harbor bill appropriating some $65,000,000; authorizing a large increase in the Navy; an isthmian canal bill. Two important bills which underwent prolonged and partisan discussion, but failed of passage, were the ship subsidy bill and the Cuban reciprocity bill.

Congressional Campaign of 1902.—The State elections of August and September, 1902, which were, as ever, looked to as indicative of the political trend of thought, passed off without showing any material change in the attitude of parties. Oregon elected a Democratic governor through schism in the Republican ranks, but the two Republican Congressmen were elected by increased majorities. In Vermont there was a triangular contest over the liquor question, and a failure to elect a governor. The Republican candidate was subsequently elected by the legislature. In Maine the Republican majorities were maintained, and in some instances increased. In Arkansas the Democratic majorities were increased.

Attitude of Parties.—In preparing for the Congressional elections of November, 1902, the Democrats were divided in their platform utterances upon free-silver coinage, but united in their opposition to the tariff as the father of trusts and to the trusts themselves, as well as to the Philippine policy of the Republicans. The Republicans generally affirmed their national platform of 1900, and pointed with confidence to the prosperity that had followed their supremacy and measures. A significant and favorite means of showing their support of the Roosevelt administration was to allude to him as their choice for the next candidature for the Presidency.

As the campaign progressed the Republicans were somewhat concerned about the declination of Speaker of the House Henderson to run again for Congress in his district. But anxiety over his poorly excused conduct soon abated. The administration loaned the best speakers in the cabinet to the Republican cause, and the President himself toured New England, the Southwest, South and Northwest for the purpose of making plain his position and that of his party on the trust question, a course deemed proper by the fact that some of the trust magnates had taken offence at his attitude, and had even threatened to throw their fortunes in with the Democrats. It was on his New England tour that he met with injury in a streetcar collision with his carriage, a consequence of which was an outbreak on the leg which cut short his Northwestern tour.

Party Hopes.—Both parties continued in hopeful mood throughout the campaign, the supreme contention being, of course, a majority in the House of the Fifty-eighth Congress, the margin bound to be small either way.

Election Results in 1902.—Congressional elections were to be held (November 4, 1902), in forty-two States, Maine, Vermont and Oregon having already elected their delegations, all Republican. Twenty-two States were to elect governors. Democrats counted largely on the rule that Congresses elected midway of a Presidential term had shown a majority for them. Republicans pointed with confidence to the fact that the Congress (the Fifty-sixth) elected midway of McKinley's first term (1898) had proven an exception to the rule, their majority therein having been some thirteen. In the Fifty-seventh Congress (1900) they had a majority of some forty-five. The increase in representation, due to the twelfth (1900) census, favored the Republicans. The result of the battle (1902) was a Republican majority in the Fifty-eighth Congress, rating at less than that in the Fifty-seventh, but greater than that in the Fifty-sixth. The election had shown no tidal revolution in sentiment, and the Roosevelt administration remained in possession of power to pursue its policies. This Congress, the Fifty-eighth, was the first elected under the new apportionment after the census of 1900, whereby the membership in the House was increased from 357 to 386. The relative strength of parties was Republican, 208; Democrats, 178.

Fifty-Seventh Congress—Second Session.—The Congress opened its second session, December 1, 1902, and, of course, ended by limitation, March 4, 1903. The work of the first session has already been recounted in prior pages. The work of the second session was carried on vigorously in the House till within a few days of the end of the session, when it was obstructed by the dilatory tactics of the minority. The same features characterized the work of the Senate. Among the important enactments was provision for a special metallic currency for the Philippines, on a gold basis; the creation of the Department of Commerce and Labor; more stringent laws relating to the regulation of "Trusts"; extension of rural free delivery; abolition of liquor selling in the Capitol; amendment of the immigration laws so as to exclude obnoxious foreigners. Among the important measures that failed were Cuban reciprocity; marine subsidy, currency reform, reduction of duties on Philippine imports, Aldrich's currency relief bill, protection of the President against assassins, the pure food law.

Appropriations.—The Fifty-seventh Congress was liberal in the extreme, and its appropriations involved but little partyism. Appropriations by the first session were $800,624,490; for the second, $753,484,618; a total of $1,554,108,514. The river and harbor bill alone carried some $70,000,000, owing to the failure of the Fifty-sixth Congress to appropriate. Extra amounts of $50,000,000 each were required to meet Post Office needs and the expenses of taking title to the Panama Canal route.

Extra Session of the Senate.—Owing to the failure of the Senate to act on the treaties relative to the Panama Canal and Cuban reciprocity, the President called the Senate of the Fifty-eighth Congress into extra session, March 5, 1903. The Democrats withdrew the obstructions which had defeated both these measures during the regular session, with the result that both treaties were promptly ratified, the Panama treaty on March 17, and Cuban reciprocity on March 19.

Trust Decisions.—The Government, in pursuance of its policy of prosecuting illegal trusts, gained two notable victories in the United States Court of Appeals in 1902-03. Suits in equity had been instituted against the Northern Securities Company, an institution formed for the purpose of effecting a merger of the Northern Pacific and Great Northern Railway Companies, and against the so-called "Beef Trust." The court decided against both, and restrained their operations. Simultaneously the Supreme Court of the United States decided the celebrated Giles case. Giles, a colored man, had been denied registration by a registration board in Alabama, and had entered suit to protect his rights. It came into the Supreme Court on appeal from a local court, and was decided against Giles, by a bare majority of the court, on the ground that the case was purely a political one, and could not be relieved in an equity suit in a national tribunal, however flagrant the wrong. Relief must be had in the State courts. As the Alabama court had already decided against Giles, he was practically left without remedy.

Report of Coal Commission.—The report of this important commission, appointed by the President to investigate and report upon the anthracite coal strike, was made public on March 21, 1903. It granted the claim of the miners to an eight hour day and a 10 per cent increase in wages, but refused to recognize their union. There was to be no further strike inside of three years. The decision was regarded as fair by all parties, and was hailed as a long step toward the principle of arbitration in labor troubles.

A Postal Scandal.—During the middle and later months of 1903, the Post Office Department was kept busy investigating charges of corrupt practices on the part of some of its officials. These charges mainly related to the diversion of certain funds to wrongful uses, and to the participation of officials in contracts for supplies. Most of the charges were dismissed, but several were sustained, and indictments and trials followed. As a result, several necessary reforms were introduced into department methods.

Changed Army Organization.—The lessons of the Spanish-American War led the Administration to insist upon the creation of a General Staff, upon whom should devolve the duty of keeping the Army effective and of facilitating preparations in case of war. The measure introduced into Congress to bring the change about was bitterly fought by the old influences, but eventually passed and went into operation on August 15, 1903. Lieutenant-General Miles had retired on August 8, having reached the age limit. Major-General S. B. Young succeeded him as Lieutenant-General commanding the Army, but this position lasted only until August 15, when the title became Lieutenant-General and Chief of Staff. On January 9, 1904, Lieut.-Gen. Young was retired for age, and was succeeded by Adna R. Chaffee as Lieutenant-General and Chief of Staff.

Defeat of the Panama Treaty.—A matter of great concern to the Administration and to all parties was the defeat, in August, 1903, by the Colombian Congress, of the Panama Canal treaty, which had been ratified by the United States Senate and submitted to Colombia for action. Inasmuch as its provisions were liberal, and about all that our Senate was disposed to yield, its rejection by Colombia proved not only a disappointment but a source of administrative embarrassment. This treaty was known as the Hay-Herran Treaty, and it proposed to give to Colombia $10,000,000 in cash, and a large annual rental, for the right of way for a canal across the Isthmus.

Panama Independence.—The defeat of the Panama Canal treaty by Colombia proved a special grievance to the State of Panama, and she seceded Nov. 3, 1903, and set up an independent government, which the United States and other countries recognized as *de facto*. The United States negotiated a new Canal Treaty with Panama on even better conditions than the rejected Hay-Herran treaty contained, though the cash sum remained at $10,000,000. This was known as the Hay-Bunau-Varilla treaty. It was ratified by Panama Dec. 2, 1903.

Alaskan Boundary Dispute.—The Alaskan Boundary Commission, to which the dispute over the Alaskan boundary had been referred, sat in London in the summer and autumn of 1903, and on October 20 a majority of the members signed a report sustaining the contention of the United States except as to some matters of minor moment relating to the Portland Canal.

Congress (58th) in Extra Session.—President Roosevelt called the 58th Congress in extra session for Nov. 9, 1903, to give final sanction to the ratification of the Cuban Reciprocity Treaty. This final step did not take place until December 16, 1903. Meanwhile the extra session had, on Dec. 7, 1903, merged into the regular session without a recess.

Parties in the 58th Congress.—On December 16, 1903, the Hay-Bunau-Varilla Panama Treaty, as ratified by Panama, reached the United States, and was submitted to the Senate for ratification. It was opposed by a large Democratic contingent, but with the aid of several Southern Senators the necessary majority for ratification was finally secured.

Cabinet Changes.—On February 1, 1904, President Roosevelt lost a master-mind of his Cabinet in the retiring of Elihu Root as Secretary of War. He was succeeded by Judge Taft, late Civil Governor of the Philippines, whose nomination for the War portfolio had been confirmed by the Senate on January 11, 1904.

Political Situation.—Early in 1904, both Republicans and Democrats began plans for shaping the coming Presidential campaign. In spite of some talked of opposition, Republican sentiment ran strongly in favor of the nomination of President Roosevelt. The Republicans called their convention for Chicago, June 21, 1904. The Democrats called theirs for July 6, at St. Louis. There existed no crystalized sentiment in their ranks in favor of any particular candidate or of any definite campaign policy. Instead, wide division existed as to the part Mr. Bryan should be permitted to play in party councils, and especially as to the effect a re-affirmation of the platform of 1900 as to free silver coinage would have on party success.

The Unit and Two-third Rules.—The probable Democratic plight in its coming National Convention was much discussed in advance, and along lines which seemed to indicate that recourse might have to be had to a radical modification of the traditional convention rules. Years agone the Republicans had repudiated what was popularly known as the "unit rule" in their national conventions; that is, the rule by which the members of the respective State delegations, when so instructed, voted as a unit in convention for their favorite presidential candidate. It was felt that this radically interfered with individual responsibility and personal choice, and it was this feeling that was now reflected in Democratic discussion of the rule. Again, almost from time immemorial Democracy had carried on its conventions under the operation of the "two-thirds rule," that is, the rule requiring the vote of two-thirds of a convention to nominate a presidential candidate. The rule had grown antiquated, and had frequently given rise to prolonged sessions and other troubles. Hence the discussion as to the propriety of its abolition.

Further Cabinet Changes.—The resignation of Attorney-General Philander C. Knox, to take effect July 1, 1904, owing to the fact that he had been appointed by the Governor of Pennsylvania a United States Senator from that State to fill the unexpired term of Matthew S. Quay, deceased, made an opening which the President filled by the appointment of Secretary of the Navy, William H. Moody, to the place. The Secretaryship of the Navy thus becoming vacant, Paul Morton, of Illinois, prominent in railway and industrial affairs, was appointed to the place. On June 24, 1904, George B. Cortelyou, Secretary of the new Department of Commerce and Labor, resigned, to take effect July 1, 1904, on account of his having been chosen chairman of the Republican National Campaign Committee. His position was filled by the appointment of Victor H. Metcalf, Congressman from California.

Fifty-eighth Congress.—As already stated, the first regular session of the Fifty-eighth Congress began December 7, 1903. The relative strength of membership was Republicans, 208; Democrats, 178. Owing to the fact that 1904 was a presidential year, the majority party engaged in little initiative work, though the Senate was enlivened by discussion of the new Panama treaty, and of the attitude of the President respecting the new Republic of Panama. After passing the necessary appropriation bills, the session adjourned, April 28, 1904, the earliest date of adjournment for the long session in half a century.

National Campaign of 1904.

Socialist Party Convention and Platform.—For historic purposes it is well to state in this connection that the last convention of the American Railway Union was the first convention of the Social Democracy of America, and was held at Chicago, June, 1897, the change of name, and, in some respect, of principles, being due to the crushing of the Union after the Pullman strike. At the national convention of the Social Democracy, June, 1898, a split occurred, one faction adhering to the colonization scheme, the other favoring political action as a working-class party. The latter faction became known as the Social Democratic Party. In July, 1899, the Socialist Labor Party divided, and one of its factions united with the Social Democratic Party in 1900, the united party taking the name of the Socialist Party, its official name to-day, though in the States of New York and Wisconsin it is still known as the Social Democratic Party. In 1900 the Socialist Party cast 87,814 votes, and the Socialist Labor Party 39,739 votes.

The Socialist Party, the first in the field for the campaign of 1904, met in national convention at Chicago, May 1-6, 1904, where it nominated, May 5, as its candidate for President Eugene V. Debs, of Terre Haute, Indiana, and for Vice-President Ben Hanford, of New York.

Its platform appealed to the people as that of the only organization that is truly democratic; that other parties are false to the idea of liberty and self-government in which the nation was born; that American institutions, born in the name of freedom, have been seized by the capitalist classes; that State and National legislatures have become the agencies of property interests, which interests control judges and courts, betray foreign and weaker peoples in order to establish new markets for surplus goods which the people make but are too poor to buy; restrict the right of suffrage; brought all the forms of public teaching into their own servile submission; that capitalism is the enemy and destroyer of essential private property; that socialism comes to organize industry and society so that the individual shall be secure in the means of life; that socialism is a world movement and stands for the freedom of the workers of all nations; that society based on class division carries in itself the seeds of its own destruction; that if the world is to be saved from chaos and misery it must be by the union of the workers of all nations in the socialistic movement; that socialism means that those things on which the people in common depend shall by the people in common be owned and administered; that in order to hasten the establishment of the coöperative commonwealth, the Socialist Party pledges itself to work for shorter days of labor, increased wages, insurance of workers against accident, sickness and lack of employment, pensions for the aged, public ownership of transportation, communication and exchange, graduated taxes on incomes, inheritances and land values, education of children and their exemption from the workshop, prevention of the use of the military in time of strikes, free administration of justice, use of political power as fast as obtained for the immediate and ultimate interest of fellow-workers.

Republican National Convention and Platform.—The Republican Party was second in the field in 1904. Pursuant to call it met in national convention at Chicago, June 21, 1904. It was an harmonious body. On June 22 it adopted a platform of principles, and, on the 23d, it unanimously nominated Theodore Roosevelt, of New

York, for President, and Senator Charles W. Fairbanks, of Indiana, for Vice-President. Both these nominations had been foreshadowed for a considerable time, especially that of President Roosevelt, whose administration had found great favor with his party. The platform recited the leading achievements of the party since its foundation, fifty years before. It then favored maintenance of the principle of protection, but with necessary readjustment of tariff schedules, at the hands of its friends, as changed conditions demanded, and with the adjunct of reciprocity when advantageous to trade; the further upholding of the gold standard; the encouragement of the merchant marine; the strengthening of the navy; the open-door policy; the civil service and pensions; the limitation of representation in Congress in States where the franchise is withheld; execution of the laws against trusts; endorsed the policy of President Roosevelt as to foreign relations—in the Philippines, and respecting recognition of the new Republic of Panama and the new treaty securing right of way for a canal across the isthmus.

Prohibition Convention and Platform.—The Prohibition Party met in national convention at Indianapolis, June 29, 1904, and nominated Silas C. Swallow, Pennsylvania, for President, and George W. Carroll, Texas, for Vice-President. The platform denounced the licensed sale of alcoholic beverages; the lack of statesmanship in the Republican and Democratic Parties; that a half-century's experience had proved that every method to check the liquor traffic which recognized its right to exist had proved powerless to remove the evil; that prohibitory legislation was the only hope of protection for the people; that the Prohibition Party stands pledged to enact and enforce prohibition laws; that prohibition is the supreme issue of the day; that on other questions, we declare in favor of the impartial enforcement of all law, principles of justice between capital and labor, adaptation of the principle of initiative and referendum, international arbitration, reform of divorce laws, suffrage based on mental and moral qualification, uniform laws for the country and its dependencies, honest administration of the civil service, the election of United States Senators by popular vote.

Socialist Labor Convention and Platform.—The national convention of the Socialist Labor Party was held at Grand Central Palace, New York City, July 2-8, 1904. Charles Hunter Corregan, of the New York *Daily People,* was nominated for President, and William Wesley Cox, of Illinois, for Vice-President. The platform asserted the inalienable right of man to life, liberty and the pursuit of happiness; that the purpose of government was to secure these, but that existing government did not, especially to the working class; that the true theory of economics is that the means of production must be owned, operated and controlled by the people in common; that man must own the land and the tools with which to work; that existing theories of government divided the people into two classes, capital class and working class, thereby throwing society into the class struggle, and perverting government to the exclusive benefit of the capitalist class; that labor is robbed of wealth which it alone produces; that the unconditional surrender of the capitalist class is demanded; that in the national course of social evolution existing systems will have worked their own downfall; therefore, the wage-workers are asked, under the banner of the Socialist Labor Party, to join the working-class interests and place the land and all means of production, transportation and distribution in the hands of the people as a collective body, thereby substituting the coöperative commonwealth for the present state of planless production, industrial war and social disorder.

Populist Convention.—The Populist Party met in national convention at Springfield, Illinois, July 4, 1904. Twenty-three States were represented. The platform restated the well-known articles of Populistic faith; and the nomination for President went to Hon. Thomas E. Watson, of Georgia, who was the candidate of the party for Vice-President in 1896. Thomas H. Tibbles, of Nebraska, was made the nominee for Vice-President.

Democratic Convention, 1904.—The Democratic National Convention met at St. Louis, Missouri, July 6, 1904, and nominated Judge Alton B. Parker, of New York State, for President, and Henry G. Davis, of West Virginia, for Vice-President. A severe contention arose over the disposition of the money question, the East inclining to the gold standard, the West to free-silver coinage, as in 1896 and 1900. It was felt that in order to reconcile differences each section must make a surrender. So, an agreement was reached by omitting all mention of the money question in the platform. The situation did not prove pleasing to Judge Parker, and he informed the convention that he must be regarded as favoring the existing gold standard. The convention was thrown into confusion, which was only settled by a voted reply to Judge Parker to the effect that the convention could see nothing inconsistent between his affirmative position and that assumed by the convention in leaving out of the platform all mention of the money question, since it had been decided that nothing but live issues should be inserted. As was stated by Democratic Senator Pettigrew: "The convention has made a declaration which the East will not accept as an endorsement of the gold standard, but which the West will accept as a complete repudiation of the principles the Democrats have fought for since 1896."

Democratic Platform, 1904.—The platform elaborated the fundamental principles of Democracy and declared adhesion to them; favored laws securing to labor and capital their respective rights; opposed the violation of constitutional guarantees; favored improvement of the great water-ways of the country; economy of administration; honesty in public service; return to Jeffersonian simplicity of living; favored the election of a President opposed to usurpation of the legislative and judicial function; favored the "open door," but without entanglement in foreign affairs; opposed the making of laws for colonies different from those for the home people; favored doing for the Filipinos what we had done for the Cubans, *viz.,* set them on their feet and then leave them independent to work out their own destiny; opposition to a tariff, because "protection is robbery of the many to enrich the few," but tariff revision should be gradual and by the friends of the masses, not by the friends of its abusers; opposed trusts as harmful to competition and tending to monopoly; demanded enlargement of the powers of the Interstate Commerce Commission, and enforcement of laws against trusts; favored irrigation laws and the construction of the Panama Canal; protection of American citizens at home or abroad and without respect to race or creed; election of United States Senators by direct vote of the people; statehood for Oklahoma, Indian Territory, New Mexico and Arizona, and a Territorial government for Alaska and Porto Rico; condemned polygamy; denounced the Ship Subsidy bill for encouragement of the merchant marine; favored liberal trade arrangements with Canada and other countries, where advantageous; maintenance of the Monroe Doctrine; reduction of the army to a safe basis; pensions for soldiers; civil-service reform, honestly administered, deprecated the position of the Republican Party on the race question; denounced generally the Republican administration as "spasmodic, erratic, sensational, spectacular and arbitrary."

Campaign Moods.—Both the Republican and Democratic Parties went into the campaign in a hopeful mood, the former relying on its achievements and the popularity of its candidate, the latter on the fact that it had gotten rid of the free-silver coinage incubus, had hope of complete reorganization, faith in large subscriptions, and confidence in the results of severe and persistent attack upon the personality of the Republican nominee. Thus shaped up, the campaign moved impetuously forward to its culmination in November, the leading episodes, calculated to inspire or discourage, as party standpoints were discussed, being the election of a Republican Governor, Congressmen and Legislature in Vermont (September 6) by an unusual majority, and a like result in Maine (September 12). Prior to this Oregon had rendered an emphatic verdict for the Republicans at her State election.

Campaign Results.—The national campaign of 1904 was conducted with comparatively quiet confidence by the Republicans, and in the same manner by the Democrats, except that the latter, in certain localities, took occasion to introduce attacks on President Roosevelt's personalism. But this method proved harmful in other localities, especially in the West. As a counter to this, the few speeches made by the Democratic candidate, Judge Parker, who personally entered into the campaign at a late hour, were mercilessly analyzed by the Republicans and their errors of statement and logic spread before the public.

The result (November 8, 1904) was one of the most signal triumphs for the Republican candidate ever recorded by any party It was a veritable surprise on all sides, and was counted on as largely due to Roosevelt's individuality. He was clearly in close touch with the people, who applauded his method of "doing things," despite all the criticisms of his opponents during the campaign. The returns showed a total popular vote cast of 13,519,169 for all the candidates in the field, and a total of 13,528,979, including the scattering vote. The popular majority of Roosevelt over Parker was 2,542,062, and over all the candidates 1,730,966. The majority in the Electoral College was: Roosevelt, 336, as against 140 for Parker, or 196 in all. Roosevelt carried all of the so-called Northern States, Missouri and West Virginia, and obtained one of the electoral votes of Maryland.

Roosevelt was duly inaugurated on March 4, 1905, with imposing ceremonies. His inaugural was a brief one, devoted to general rather than special issues. On March 6, he announced to the Senate, in called session, his new cabinet officers, who remained the same as before, with the exception of George W. Cortelyou, Chairman of the National Campaign Committee, who was appointed Postmaster-General. Thus was launched for four years a new administration, Roosevelt's own, in contradistinction to that other which he had carried on since September 14, 1901, as successor to the lamented McKinley.

Fifty-eighth Congress, Second Session.—This Congress, which expired by limitation March 4, 1905, accomplished but little effective legislation during its second session. It passed the usual appropriation bills, dealing liberally with the navy. The Senate refused to ratify a series of international arbitration treaties in the form in which they had been presented by the President, and failed for the time being to sustain the position of the Administration relative to its attitude in San Domingo. Bills for the admission of new States composed of Oklahoma and Indian Territory, and Arizona and New Mexico, failed, as did those relating to pure food, eight hours a day, opposition to injunctions, railway rebates, and others of lesser moment. But many of these underwent discussion, and the groundwork was laid for future passage or, at least, consideration. The House of Representatives stood well in with the President as to measures he favored, but the Senate proved obstructive, on the claim that "make haste slowly" was an adage still in vogue with it.

Roosevelt's Administration. President Roosevelt was duly inaugurated, March 4, 1905, and outlined an administration on the "Square deal" plan, that is, one of inquiring into and prosecution of railways, "trusts," and corporations of all kinds, which had been using illegal means of profit and enrichment.

Russo-Japanese Peace Treaty. War between Russia and Japan was terminated by a treaty, signed by representatives of the belligerent countries, at Portsmouth, N. H., September 5, 1905. This result was largely due to the suggestion and influence of President Roosevelt, who acted in accord with European powers, and won for himself the title of the "Great Peacemaker."

A Great Awakening. A demand for civic and political betterment swept over the country in 1905. The election results showed rebukes of "graft" and "bossism." States and cities which had been either strongly Republican or Democratic overturned their usual majorities, and many strongly entrenched "rings" were, for the time being at least, deprived of their corrupt mastery.

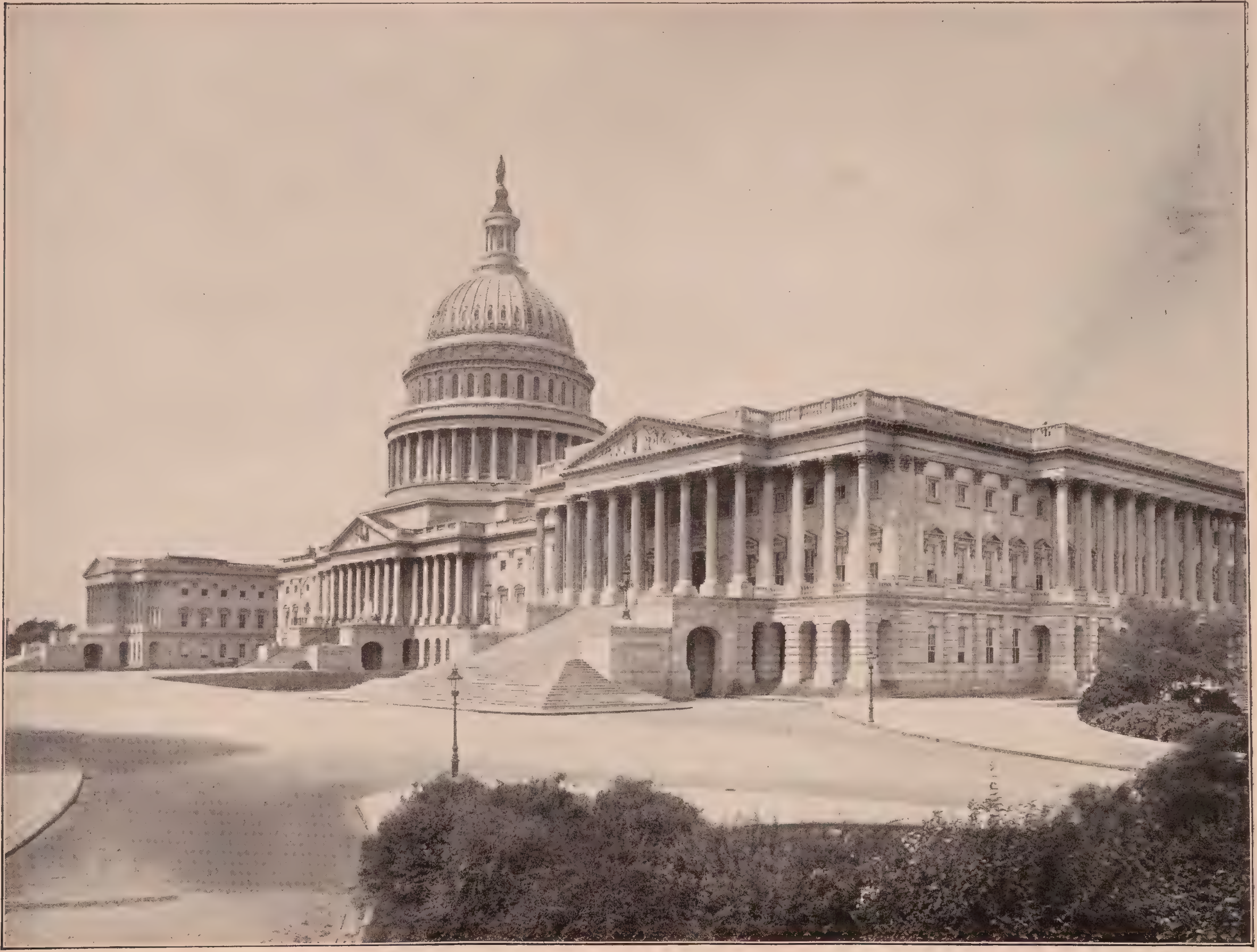
Fifty-ninth Congress. Opened its first session, December 4, 1905, with a Republican majority of 23 in the Senate and 114 in the House. Party lines were not strictly drawn, and there was pretty general response to the reform measures suggested by the President in his message. The session adjourned June 30, 1906, having increased the power of the Interstate Commerce Commission over traffic rate regulation; passed a pure food law; regulated immigration; fixed a lock-type canal for Panama; and passed an enabling act for the State of Oklahoma. The second session of this Congress, which adjourned by limitation, March 3, 1907, was not prolific of important legislation, except a large appropriation bill for harbor improvements.

San Francisco Calamity. On April 18, 1906, this city was visited by an earthquake which, with the fire that followed, destroyed it in great part. Over 1,000 people perished, and the property losses ran into the hundreds of millions.

A New State. Under the enabling act of 1906, Oklahoma and Indian Territories voted jointly to become the State of Oklahoma. They held elections and a constitutional convention, and a constitution was duly enacted, which was presented to the President for approval. He signed his approval, November 16, 1907, and the new State became a fact.

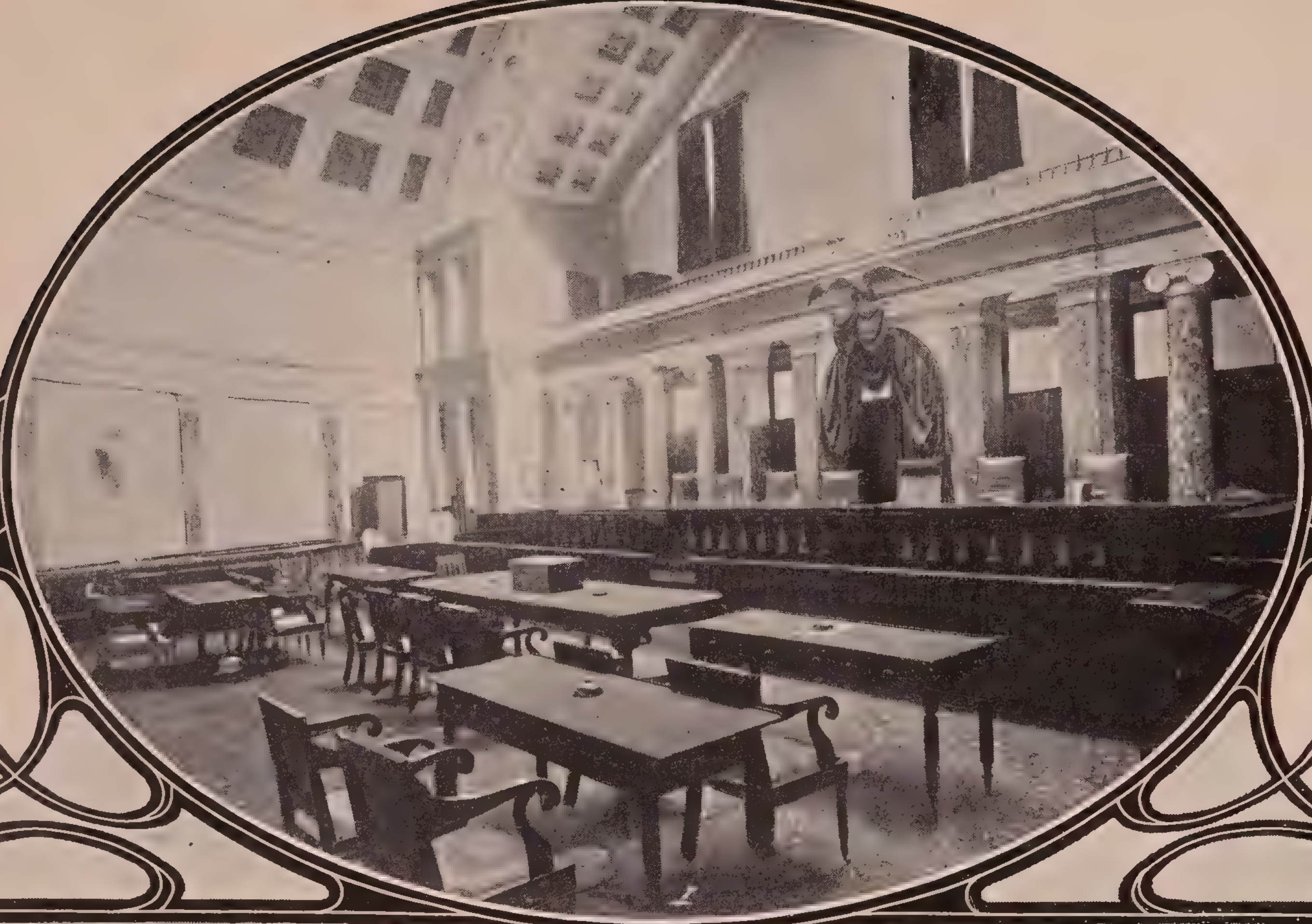
Crisis of 1907. In March, 1907, the bottom dropped out of the securities market in New York, and values of stocks and bonds shrank so as to produce a monetary crisis. In August there came further declines, and another crisis was on. Both of these were stemmed temporarily; but in October and November the monetary condition reached almost the proportions of active panic. People and banks grew distrustful, money became scarce, credit was largely suspended, an open and disastrous crash was feared daily. Only after heroic measures of aid extended by the Government and the Clearing Houses of the large cities did the situation clear up and money begin to flow in usual channels.

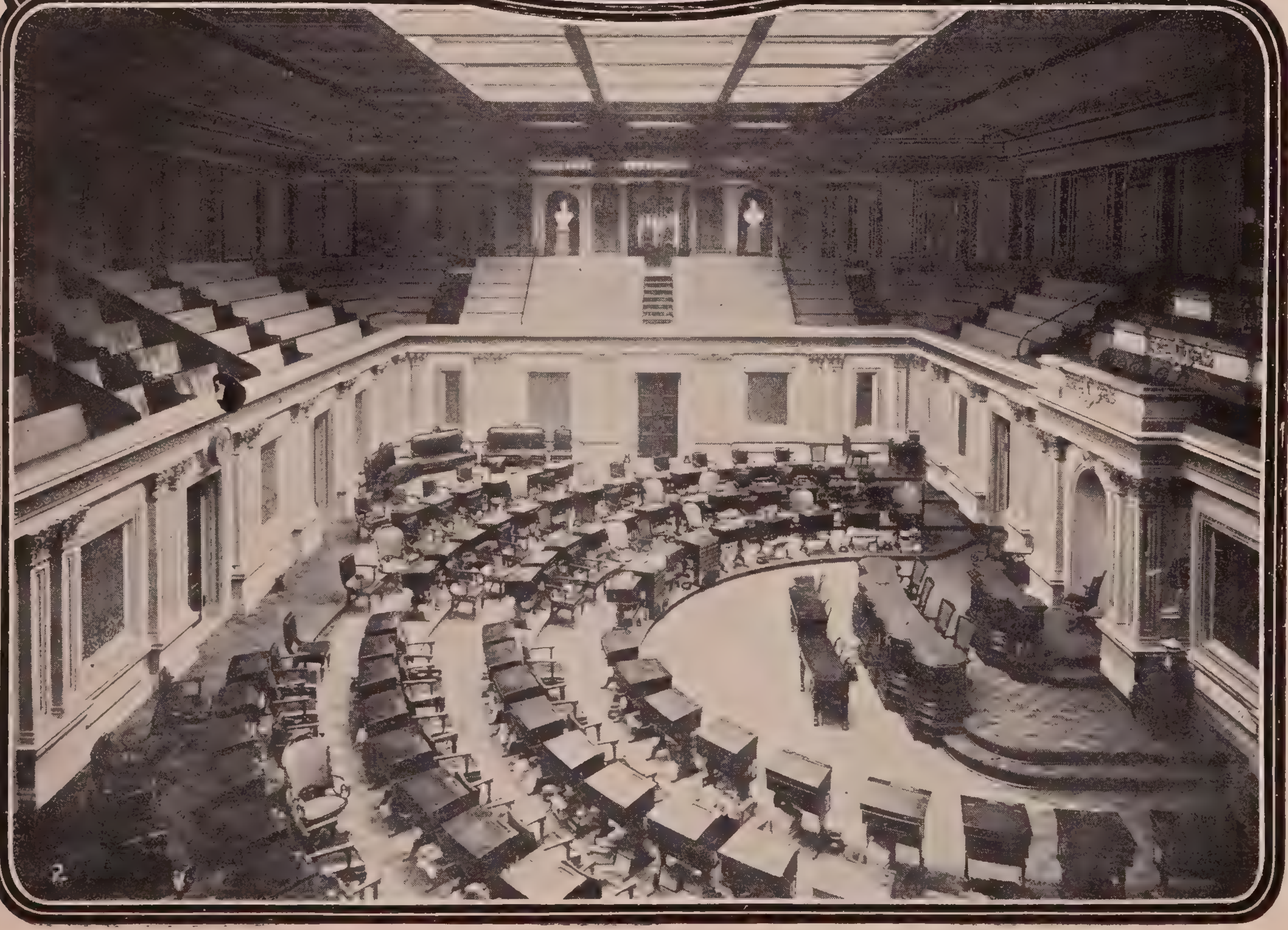
WASHINGTON.



Capitol Building.

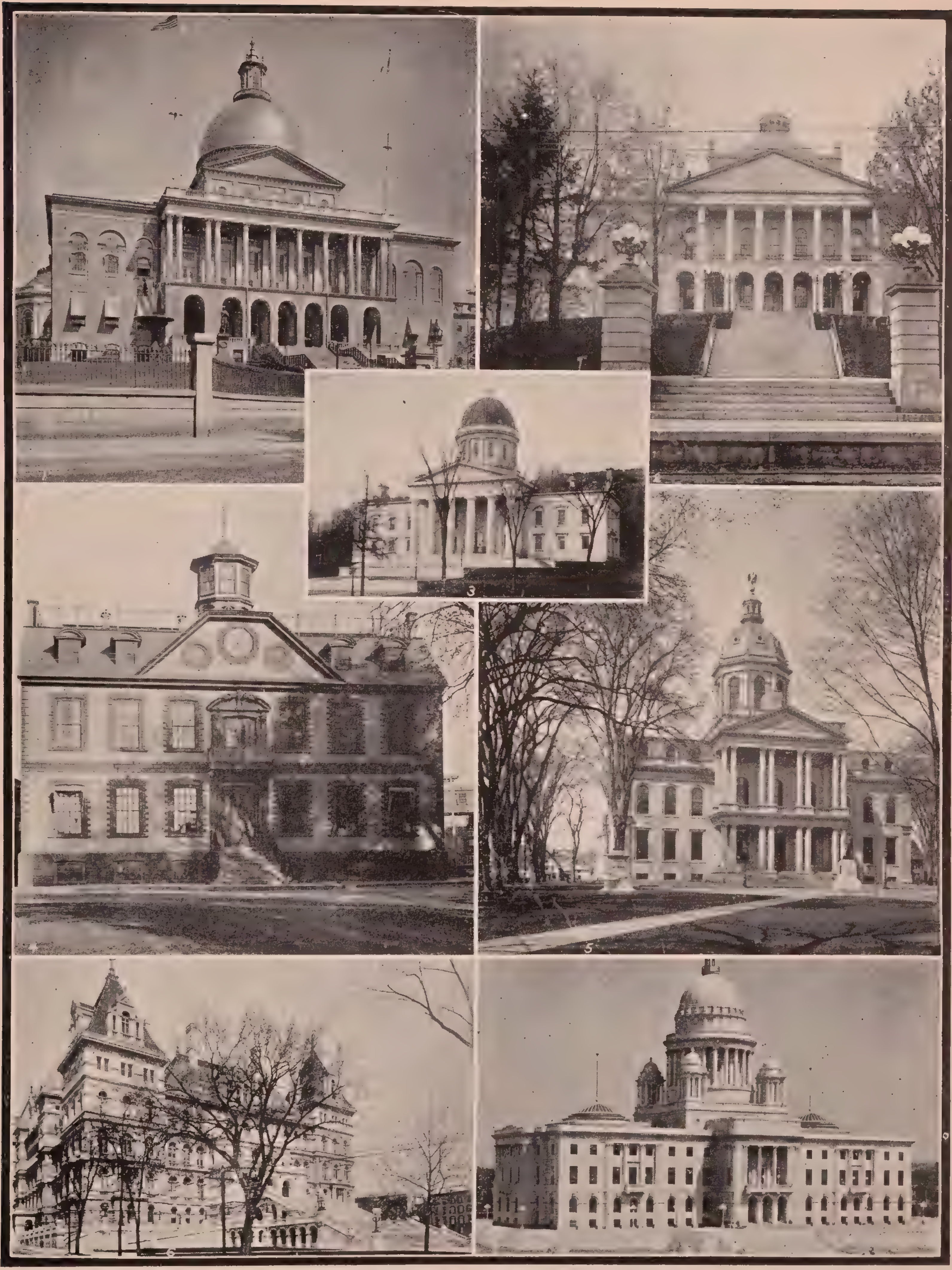
WASHINGTON.





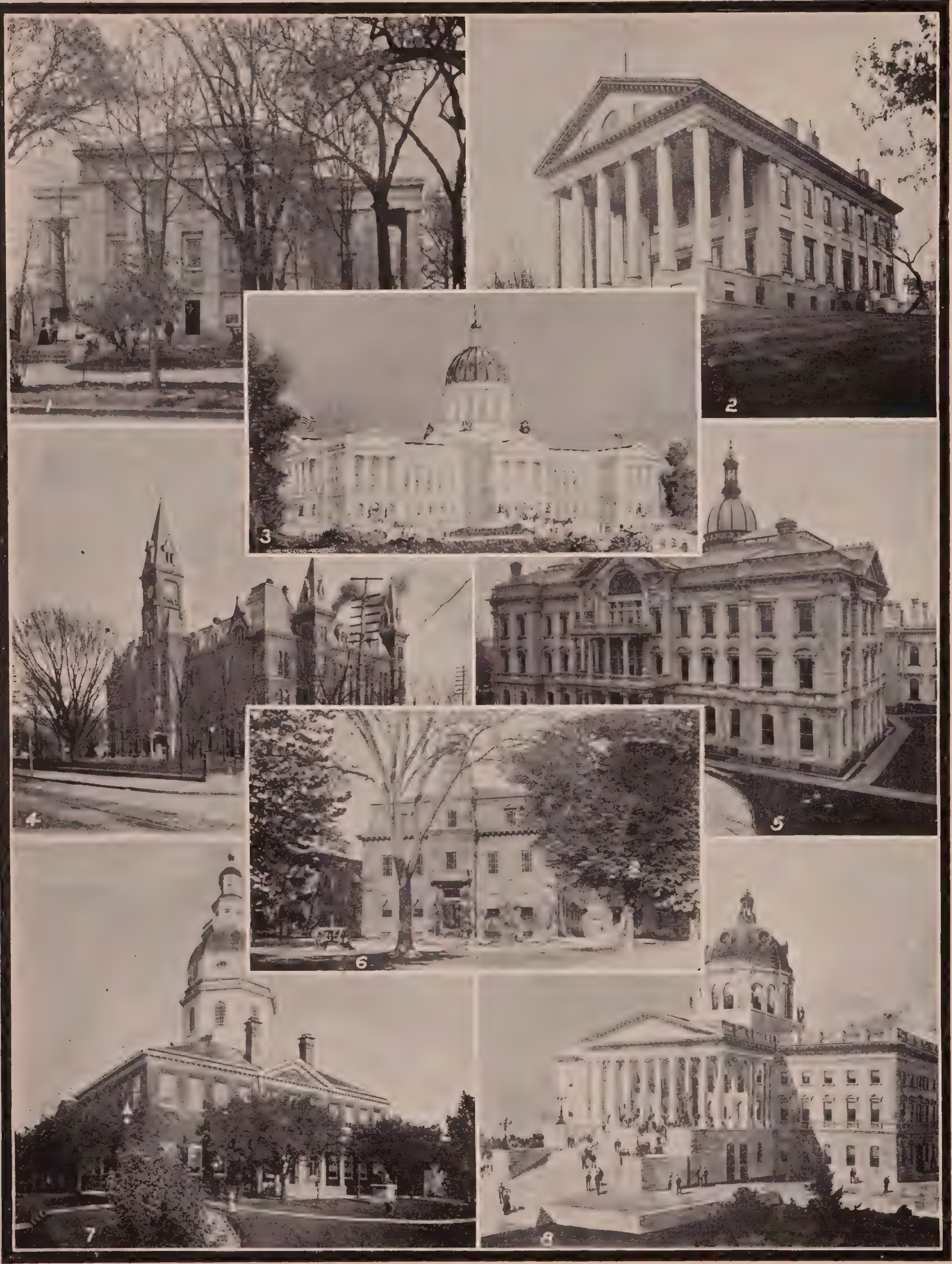
1. Supreme Court. 2. Senate Chamber.

STATE CAPITOL BUILDINGS.



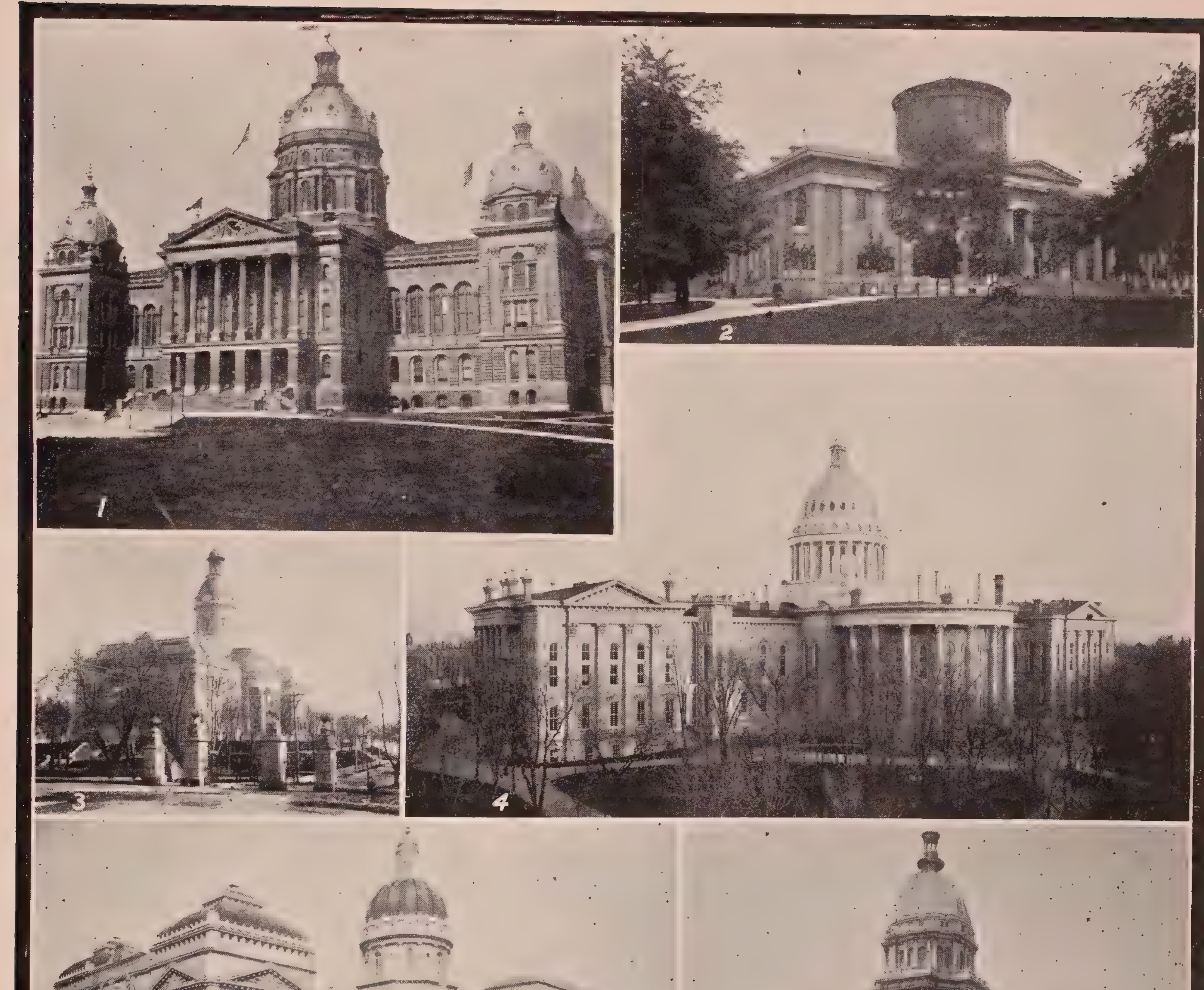
1. Boston, Mass. 2. Augusta, Me. 3. Montpelier, Vt. 4. Newport, R. I. 5. Concord, N. H.
6. Albany, N. Y. 7. Providence, R. I.

STATE CAPITOL BUILDINGS.



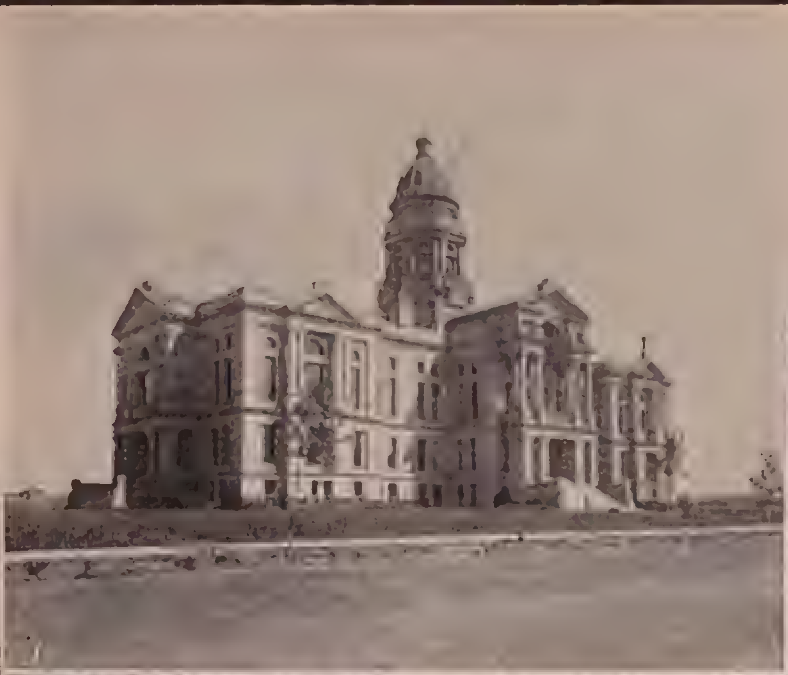
1. Raleigh, N. C. 2. Richmond, Va. 3. Harrisburg, Pa. 4. Charleston, W. Va. 5. Trenton, N. J.
6. Dover, Del. 7. Annapolis, Md. 8. Columbus, S. C.

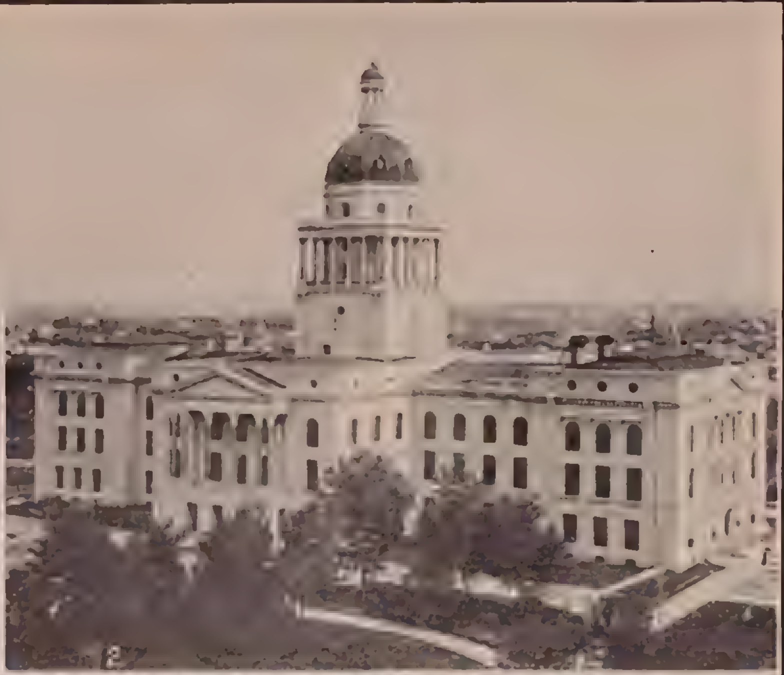
STATE CAPITOL BUILDINGS.

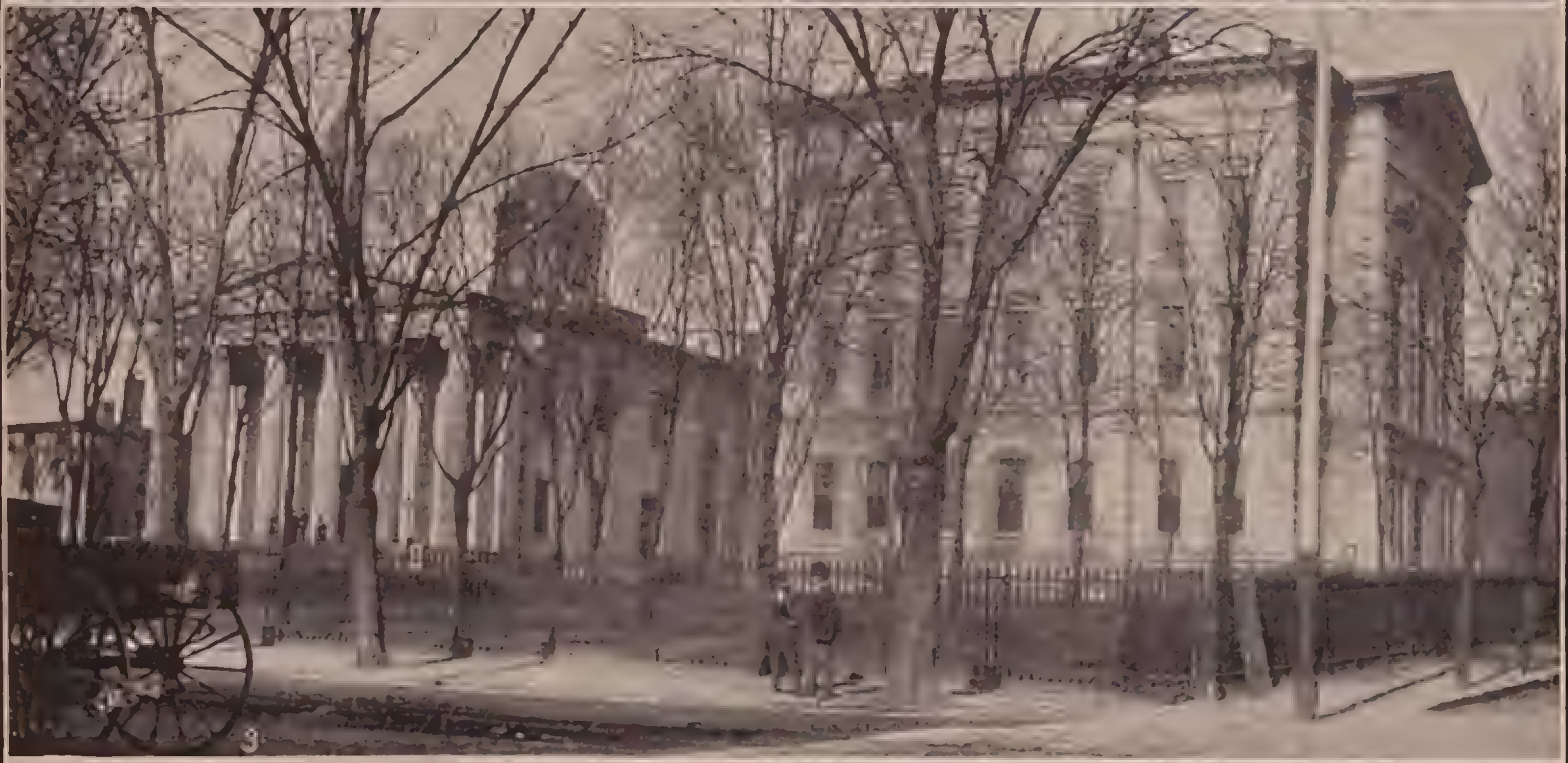


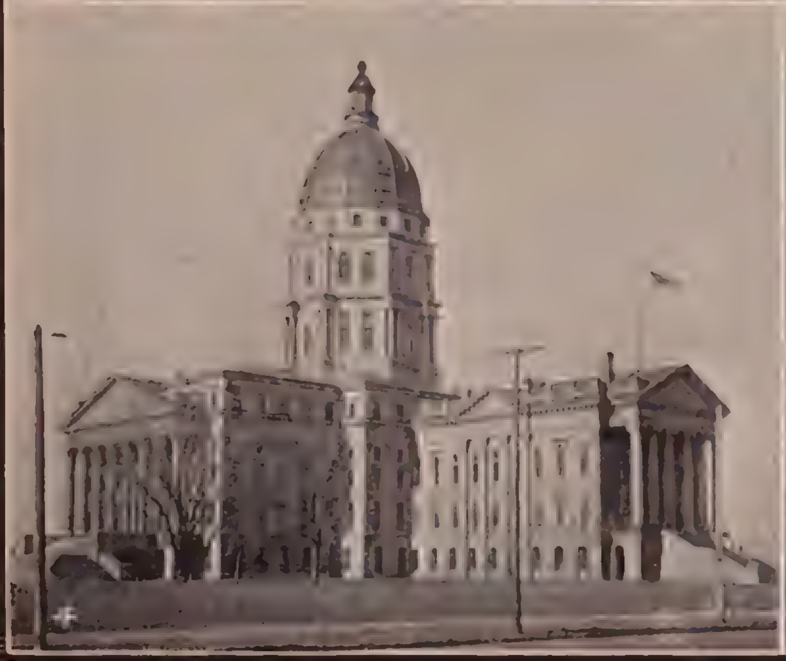
1. Des Moines, Ia. 2. Columbus, O. 3. Jefferson City, Mo. 4. Madison, Wis.
5. Indianapolis, Ind. 6. Springfield, Ill. 7. St. Paul, Minn. 8. Lansing, Mich.

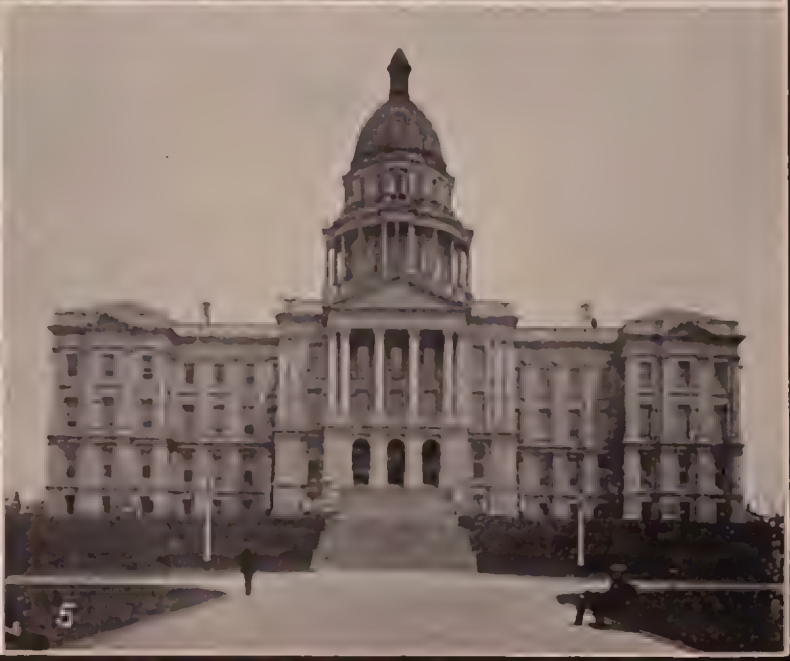
STATE CAPITOL BUILDINGS.





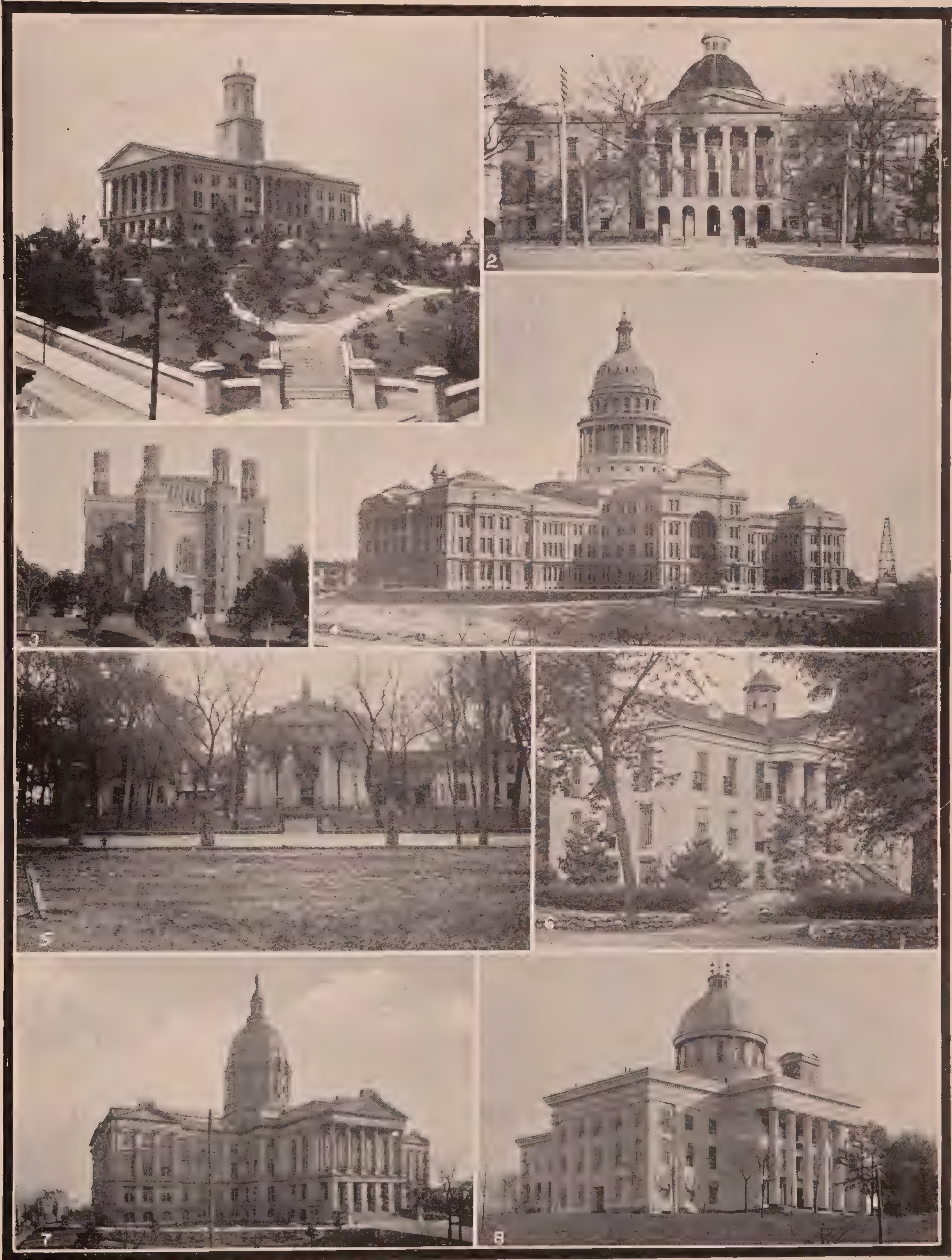






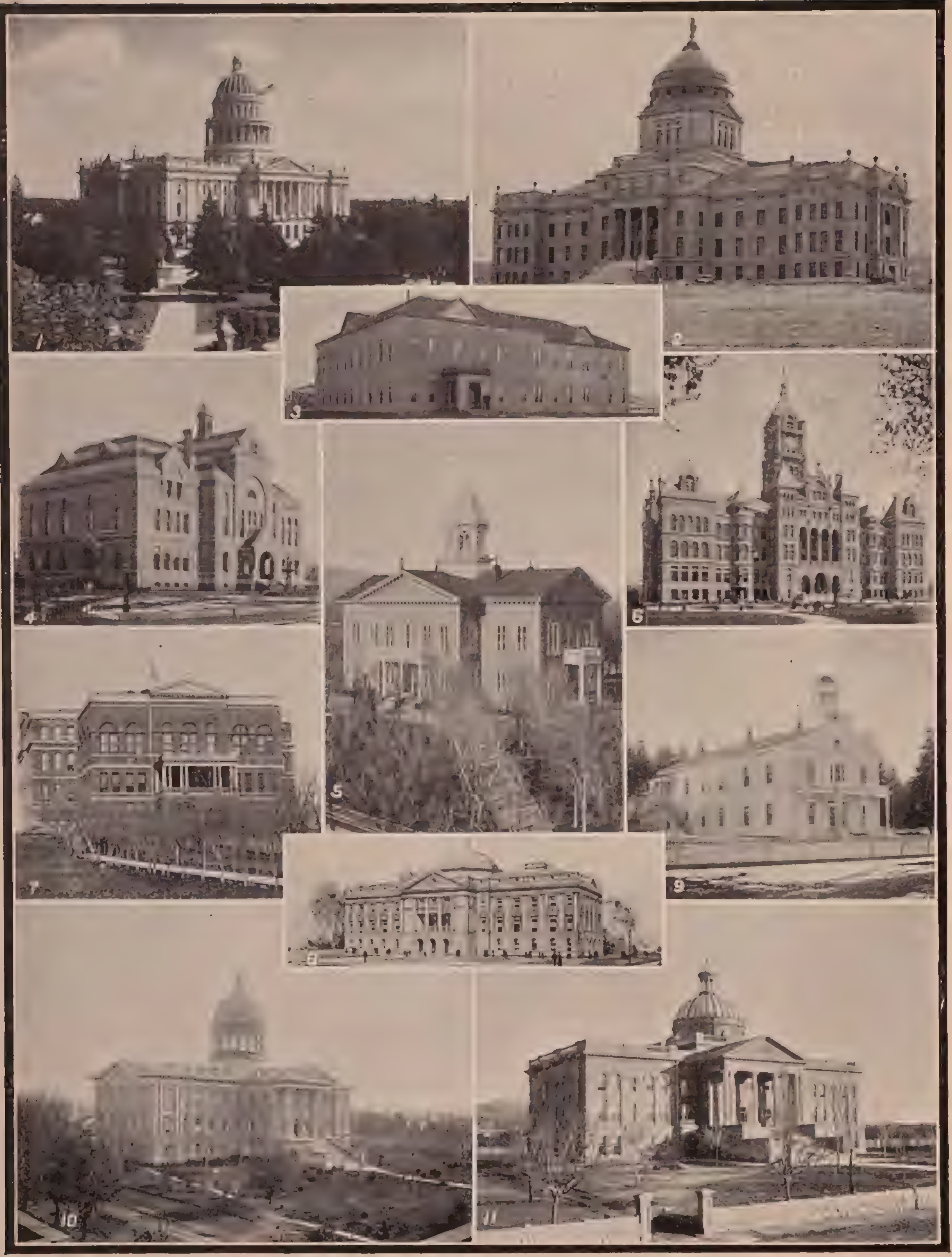
1. Cheyenne. Wyo. 2. Lincoln, Neb. 3. Frankfort, Ky. 4. Topeka, Kan. 5. Denver, Col.

STATE CAPITOL BUILDINGS.



1. Nashville, Tenn. 2. Jackson, Miss. 3. Baton Rouge, La. 4. Austin, Tex. 5. Little Rock, Ark. 6. Tallahassee, Fla. 7. Atlanta, Ga. 8. Montgomery, Ala.

STATE CAPITOL BUILDINGS.



1. Sacramento, Cal. 2. Helena, Mont. 3. Pierre, So. Dak. 4. Boise City, Idaho. 5. Carson City, Nevada.
6. Salt Lake City, Utah. 7. Bismark, N. Dak. 8. Phœnix, Ariz. 9. Olympia, Wash. 10. Salem, Ore. 11. Santa Fe, N. M.

Washington *and the* Machinery of National and State Government

NATIONAL AND STATE

LEGISLATIVE, or Law-making Branch

Organization and Working Methods of the Congress

EXECUTIVE, or Law-Enforcing Branch

Functions of President and Cabinet

JUDICIAL, or Law-Interpreting Branch

Number, Names, Powers and Duties of the Courts

Workshop of the Nation

ALL THE DEPARTMENTS THAT GOVERN THE PEOPLE; BUREAUS, DIVISIONS AND OFFICIALS; RANK, DUTIES, SALARIES; MEMBERS OF CONGRESS, EMBASSIES, COMMITTEES; GOVERNORS AND LEGISLATURES.

Here are only a few of the many subjects:

The President, election, powers, duties
Salaries of All Officials
Vice-President, election, duties
Secretary of State, powers and duties
State Department, Bureaus and Divisions
Secretary of Treasury, powers and duties
Treasury Department, Auditors and Clerks
Register of the Treasury
Commissioner of Navigation
Bureau of Standards
Life-Saving Service
Immigration Bureau
Marine Hospital Service
Department of Justice
Attorney-General and Assistants
Duties and Powers of Attorney-General
Post-Office Department
Divisions and Assistants
War Department
Secretary of War, powers and duties
Divisions and Assistants
Navy Department
Secretary of Navy, powers and duties
Bureaus and Divisions
Judge-Advocate-General
Interior Department
Secretary of Interior, powers and duties
Division Chiefs and Directors
Department of Agriculture
Secretary's powers and duties
Divisions and Bureaus
Weather Bureau
Department of Commerce and Labor
Civil Service Commission
Judicial Branch of Government
U. S. Supreme Court, organization
Circuit Courts
Legislative Branch of Government
Senate Organization
House of Representatives
Members of 57th, 58th and 59th Congresses
Declaration of Independence
Constitution of the United States
Congressional Committees
U. S. Embassies and Legations
The Electoral College
Governors of States, terms and salaries
Capitals of States
State Legislatures, terms, sessions, salaries
Civil Service Machinery

Exhaustive in detail. Ready-to-hand in arrangement. Invaluable for reference. Officially authentic. An entirely new presentation of Government workings throughout all their ramifications.

Machinery of the Government---Executive, Legislative, Judicial.

The President of the United States.

Qualifications.—The President must be thirty-five years old, a native of the United States, and a resident therein for fourteen years. The qualifications of the Vice-President are the same.

Term.—His term of office is four years, and he swears to preserve, protect and defend the Constitution of the United States to the best of his ability.

Army Status.—He is Commander-in-Chief of the Army and Navy of the United States, when it is called into the actual service of the nation.

Advisors.—He may require the opinion in writing of the principal officers in each of the executive departments upon any subject relating to the duties of their respective offices. These executive departments are eight in number—Department of State, Treasury Department, War Department, Department of Justice (Attorney-General), Post Office Department, Navy Department, Department of the Interior and Department of Agriculture. The heads thereof constitute the President's Cabinet or official family.

Powers.—He has power to grant pardons for offence against the United States, except in cases of impeachments; to make treaties by and with the advice and consent of two-thirds of the Senate; nominate, and, by and with the advice and consent of the Senate, appoint ambassadors, ministers and consuls to foreign countries, Judges of the U. S. Supreme Court, and all other officers of the United States whose appointments are not otherwise provided for. If vacancies occur during a recess of the Senate, he may grant commissions to new appointees, which shall expire at the end of the next session of the Senate.

Duties.—He must give to Congress, from time to time, information of the state of the Union, and advise such legislation as to him shall appear proper and expedient. He may call either house of Congress or both into special session on extraordinary occasions or in a national emergency. If the houses disagree as to a time of adjournment, he may adjourn them.

Signing Bills.—He shall sign all bills passed by Congress before they can become laws; and if he cannot approve a bill he may return it to the House in which it originated with his objections. This is called his veto. But if he fails to sign a bill passed by both Houses, or to return it to Congress within ten days after its passage, it becomes a law without his approval.

Time of Election.—The President and Vice-President of the United States are chosen by officials called "Electors" in each State, who are, under existing State laws, chosen by the qualified voters thereof by ballot, on the first Tuesday after the first Monday of November in every fourth year preceding the year in which the presidential term expires. What are called presidential years are even years—1900, 1904, 1908, etc.

Manner of Election.—The Constitution of the United States prescribes that each State shall "appoint," in such manner as the Legislature thereof may direct, a number of electors equal to the whole number of Senators and Representatives to which the State may be entitled in Congress; but no Senator or Representative or person holding an office of trust or profit under the United States shall be an elector. The Constitution requires that the day when electors are chosen shall be the same throughout the United States. At the beginning of our Government most of the electors were chosen by the Legislatures of their respective States, the people having no direct participation in their choice; and one State, South Carolina, continued that practice down to the breaking out of the Civil War. But in all the States now the electors are, under the direction of State laws, chosen by the people on a general State ticket.

Meeting of Electors.—The manner in which the chosen electors meet and ballot for a President and Vice-President of the United States is provided for in Article XII of the Constitution, and is as follows:

The electors shall meet in their respective States, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same State with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President; and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of government of the United States, directed to the President of the Senate.

Counting the Ballots.—The same article then prescribes the mode in which the Congress shall count the ballots of the electors, and announce the result thereof, which is as follows:

The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted; the person having the greatest number of votes for President shall be President, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President, whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President shall be the Vice-President, if such number be a majority of the whole number of electors appointed; and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice.

Cases of Dispute.—The procedure of the two houses, in case the returns of the election of electors from any State are disputed, is provided in the "Electoral Count" act, passed by the Forty-ninth Congress. The act directs that the Presidential electors shall meet and give their votes on the second Monday in January next following their election. It fixes the time when Congress shall be in session to count the ballots as the second Wednesday in February succeeding the meeting of the electors.

Presidential Succession.—The Presidential succession is fixed by Chapter IV of the acts of the Forty-ninth Congress, first session. In case of the removal, death, resignation, or inability of both the President and Vice-President, then the Secretary of State shall act as President until the disability of the President or Vice-President is removed or a President is elected. If there be no Secretary of State, then the Secretary of the Treasury will act; and the remainder of the order of succession is: Secretary of War, Attorney-General, Postmaster-General, Secretary of the Navy, and Secretary of the Interior (the office of Secretary of Agriculture was created after the passage of the act). The acting President must, upon taking office, convene Congress, if not at the time in session, in extraordinary session, giving twenty days' notice. This act applies only to such Cabinet officers as shall have been appointed by the advice and consent of the Senate and are eligible under the Constitution to the Presidency.

Salary.—The salary of the President of the United States is $50,000 per year. His official and private residence is the "White House," Washington, D. C.

Vice-President of the United States.

Qualifications.—The qualifications for office of the Vice-President are the same as those of the President. They are elected at the same time and by the same process. Their terms of office expire on the same days.

Succession.—If the President dies, or becomes unable to perform the duties of his office, or resigns, or is removed from it, the Vice-President succeeds to the office for the unexpired term. In case both should die, or be removed or unable to perform the duties of the office, then the succession goes as provided for by the Act of Congress quoted in the preceding article on the President.

Powers.—The Vice-President is by virtue of his office the President of the Senate, and the Senate may elect a presiding officer, who shall be its President in case of the death, resignation, inability or removal of the Vice-President. The Vice-President may be removed from office on impeachment for and conviction of treason, bribery or other high crime and misdemeanor.

Voting Power.—As presiding officer of the Senate he cannot vote except when the Senate is a tie on any question; then he may cast the deciding vote.

Other Duties.—As presiding officer of the Senate he opens, in the presence of the assembled members of the House and Senate, the certificates of the election of the President and Vice-President of the United States, and oversees the counting of the votes attending the certificates.

Salary.—The salary of the Vice-President is $8,000 per year.

Cabinet Officers and Duties.

THE DEPARTMENT OF STATE.

Secretary of State.—The Secretary of State is regarded as the first in rank among the members of the President's Cabinet. He is charged, under the direction of the President, with the duties appertaining to correspondence with the public ministers and the consuls of the United States, and with the representatives of foreign powers accredited to the United States; and to negotiations of whatever character relating to the foreign affairs of the United States. He is also the medium of correspondence between the President and the chief executives of the several States of the United States; he has the custody of the Great Seal of the United States, and countersigns and affixes such seal to all executive proclamations, to various commissions, and to warrants for the extradition of fugitives from justice. He is also the custodian of the treaties made with foreign States, and of the laws of the United States. He grants and issues passports, and exequaturs to foreign consuls in the United States are issued through his office. He publishes the laws and resolutions of Congress, amendments to the Constitution, and proclamations declaring the admission of new States into the Union. He is also charged with certain annual reports to Congress relating to commercial information received from diplomatic and consular officers of the United States. Salary $8,000 per year.

Assistant Secretary of State.—The Assistant Secretary of State becomes the Acting Secretary of State in the absence of the Secretary. Under the organization of the Department the Assistant Secretary, Second Assistant Secretary, and Third Assistant Secretary are charged with the immediate supervision of all correspondence with the diplomatic and consular officers, and are intrusted with the preparation of the correspondence upon any questions arising in the course of the public business that may be assigned to them by the Secretary. Salary $4,500. Salary of Assistants, $4,000 each.

Chief Clerk.—The Chief Clerk has the general supervision of the clerks and employes and of the business of the Department. Salary $2,500.

Diplomatic Bureau.—Has charge of diplomatic correspondence and miscellaneous correspondence relating thereto.

Consular Bureau.—Has charge of consular correspondence and miscellaneous correspondence relating thereto.

Bureau of Indexes and Archives.—Has charge of the opening, preparing, indexing and registering all correspondence to and from the Department; the preservation of the archives.

Bureau of Accounts.—Custody and disbursement of appropriations under direction of the Department; charged with custody of indemnity funds and bonds; care of the property of the Department.

Bureau of Rolls and Library.—Custody of the rolls, treaties, etc.; promulgation of the laws, etc.; care and superintendence of the library and public documents; care of the Revolutionary archives, and of papers relating to international commissions.

Bureau of Foreign Commerce.—Edits and publishes the monthly consular reports, special consular reports, and the annual report on "Commercial Relations." Attached to Department of Commerce and Labor, 1903.

Bureau of Appointments.—Attends to matters relating to appointments; the preparation of commissions, exequaturs and warrants of extradition; custody of the Great Seal, of applications and recommendations for office, etc.

Bureau of American Republics.—The Bureau of the American Republics was established under the recommendation of the International American Conference in 1890 for the prompt collection and distribution of commercial information concerning the American Republics. It publishes translations of the tariffs of the countries of Latin America reduced to the United States equivalents; also handbooks of these countries, a monthly bulletin containing the latest information respecting their resources, commerce and general features, and The Commercial Directory of the American Republics, an international publication. Replies are also furnished to inquiries in relation to the commercial and other affairs of the countries, and items of news giving recent laws of general interest, development of railways, agriculture, mines, manufactures, shipping, etc., are given to the press. The Bureau is sustained by contributions from the several American Republics in proportion to their population.

Superintendent of Building.—The superintendent of the State, War, and Navy Department building is the executive officer of the commission created by Congress, consisting of the Secretaries of State, War, and Navy, for the government of this building. He has charge of care, preservation, repairing, warming, ventilating, lighting and cleaning of the building, grounds and approaches, and disburses the special appropriations for this purpose; he has charge of all the employes of the building proper, and appoints them by direction of the Secretaries.

THE DEPARTMENT OF THE TREASURY.

Secretary of the Treasury.—The Secretary of the Treasury is charged by law with the management of the national finances. He prepares plans for the improvement of the revenue and for the support of the public credit; superintends the collection of the revenue, and prescribes the forms of keeping and rendering public accounts and of making returns; grants warrants for all moneys drawn from the Treasury in pursuance of appropriations made by law, and for the payment of moneys into the Treasury; and annually submits to Congress estimates of the probable revenues and disbursements of the Government. He also controls the construction of public buildings; the coinage and printing of money; the collection of statistics; the administration of the Coast and Geodetic Survey, Life-Saving, Light-House, Revenue-Cutter, Steamboat-Inspection, and Marine-Hospital branches of the public service, and furnishes generally such information as may be required by either branch of Congress on all matters pertaining to the foregoing. Salary $8,000.

Routine Work.—The routine work of the Secretary's office is transacted in the offices of the Supervising Architect, Director of the Mint, Director of Engraving and Printing, Supervising Surgeon-General of the Marine-Hospital Service, General Superintendent of the Life-Saving Service, Supervising Inspector-General of Steamboats, Bureau of Statistics, Light-House Board, and in the following divisions: Bookkeeping and Warrants; Appointments; Customs; Public Moneys; Loans and Currency; Revenue-Cutter; Stationery, Printing and Blanks; Mails and Files; Special Agents, and Miscellaneous.

Assistant Secretaries.—To the First Assistant Secretary is assigned the general direction and supervision of all matters pertaining to the Customs Service, and all matters relating to the public business assigned to the following bureau, offices and divisions: The Bureau of Navigation; the Office of the Supervising Inspector-General, Steamboat-Inspection Service; the Office of the Supervising Surgeon-General, Marine-Hospital Service; the Office of the Life-Saving Service; the Division of Customs; the Division of Special Agents, and the Division of Revenue-Cutter Service. Salary $4,500.

Second Assistant Secretary.—To the Second Assistant Secretary is assigned the general direction and supervision of all matters relating to the public business assigned to the following bureau, office and divisions: The Office of the Director of the Mint; the Bureau of Engraving and Printing; the Secret Service Division; the Division of Public Moneys; the Division of Loans and Currency; the Division of Bookkeeping and Warrants, and the Division of Stationery, Printing, and Blanks; all official communications relating to or making appointments, removals, or changes in compensation of the personnel of the Department and services under its control in the District of Columbia. Salary $4,500.

Third Assistant Secretary.—To the Third Assistant Secretary is assigned the general direction and supervision of all matters relating to the public business assigned to the following bureaus, offices, and divisions: The Bureau of Immigration; the Bureau of Statistics; the Office of the Coast and Geodetic Survey; the Office of the Light-House Board; the Office of the Supervising Architect; the Office of the Chief Clerk and Superintendent; the Miscellaneous Division, and the Division of Mails and Files. Salary $4,500.

Chief Clerk.—The Chief Clerk supervises, under the immediate direction of the Secretary and Assistant Secretaries, the duties of the clerks and employes connected with the Department; the superintendence of all buildings occupied by the Department in Washington, D. C.; the transmission of the mails; the care of all horses, wagons, and carriages employed; the direction of engineers, machinists, firemen, or laborers; the expenditure of the appropriations for contingent expenses of the Treasury Department; for furniture and repairs of same; fuel, lights, water and miscellaneous items, and the assignment of custodians' force for buildings under the control of the Department; the distribution of the mail; the custody of the records and files and library of the Secretary's office; the answering of calls from Congress and elsewhere for copies of papers, records, etc.; supervision of all the official correspondence of the Secretary's office, so far as to see that it is expressed in correct and official form; the enforcement of the general regulations of the Department, and the charge of all business of the Secretary's office not assigned. Salary $3,000.

Supervising Architect.—The duties of the Supervising Architect are of a technical character and are complex and varied. They embrace, subject, however, in all cases, to the direction and approval of the Secretary of the Treasury, matters pertaining to the selection of sites for public buildings; securing necessary State cession of jurisdiction; the preparation of estimates, drawings, etc., for approval by the cabinet officers, as required by law, preliminary to the erection of court-houses, custom-houses, post-offices, marine hospitals, etc.; securing, under what is known as the Tarsney Act, competitive designs, and completing all arrangements thereunder; arranging all details incident to the Government entering into contracts for construction, etc. He is also charged with the duty of maintaining and keeping in repair all buildings under the control of the Treasury Department not in the District of Columbia; maintaining and keeping in a proper state of efficiency and capacity all heating apparatus and hoisting systems in these buildings, including those in the District of Columbia; and control of the supply of vaults, safes, etc., for all public buildings. Salary $4,500.

The Supervising Architect frequently has occasion to respond to requests from other Departments in matters requiring architectural or engineering skill.

Comptroller of the Treasury.—The act of July 31, 1894, reorganizing the accounting offices of the Treasury, abolished the offices of Second Comptroller of the Treasury and the Commissioner of Customs, and provided that hereafter the First Comptroller shall be known as the Comptroller of the Treasury. The Comptroller is not charged with the duty of revising accounts, except upon appeal from the settlements made by the Auditors, an appeal to be taken within one year by either the claimant, the head of the Department interested, or by the Comptroller himself. Upon the request of a disbursing officer or the head of a department, the Comptroller is required to give his decision upon the validity of a payment to be made, which decision, when rendered, shall govern the Auditors and the Comptroller in the settlement of the account involving the payment. He is required to approve, disapprove, or modify all decisions of the Auditors making an original construction or modifying an existing construction of statutes, and to certify his action to the Auditor. He transmits all decisions made by him forthwith to the Auditor or Auditors whose duties are affected thereby. By the regulations of the Department the Comptroller passes upon the sufficiency of authorities to indorse drafts and receive and receipt for money from the Government, upon the evidence presented in applications for duplicates of lost or destroyed United States bonds, drafts, checks, etc. The forms of keeping and rendering all public accounts (except those relating to the postal service), the recovery of debts certified by the Auditors to be due to the United States, and the preservation, with their vouchers and certificates, of accounts finally adjusted, are under the direction of the Comptroller. Upon revision of accounts, appealed from the several Auditors to the Comptroller, his decision upon such revision is final and conclusive upon the executive branch of the Government. Salary $5,500.

Auditor for Treasury Department.—The Auditor for the Treasury Department receives and examines all accounts of salaries and incidental expenses of the office of the Secretary of the Treasury and all bureaus and offices under his direction. All accounts relating to the Customs Service, the public debt, internal revenue, Treasurer and assistant treasurers, mints and assay offices, Bureau of Engraving and Printing, Coast and Geodetic Survey, Revenue-Cutter Service, Life-Saving Service, Light-House Board, Marine Hospital, public buildings, Steamboat-Inspection Service, Immigration Service, Bureau of Navigation, Secret Service, Alaskan fur-seal fisheries, and all other business within the jurisdiction of the Department of the Treasury, and certifies the balances arising thereon to the Division of Bookkeeping and Warrants. Salary $4,000.

The subordinate divisions of his office are:

Customs Division.—Receipts and expenditures of the customs service, including fines, emoluments, forfeitures, debentures, drawbacks, and warehouse and bond accounts received from custom-houses.

Internal Revenue Division.—Accounts of collectors of internal revenue, including salaries, contingent expenses, and compensation of storekeepers.

Public Debt Division.—Redemption of the public debt, including principal, premium and interest, the payment of interest, redemption of certificates of deposit, notes destroyed.

Miscellaneous Division.—Accounts of mint and assay offices, construction, repair and preservation of public buildings; Treasurer of the United States, for general receipts and expenditures; Bureau of Engraving and Printing; Coast and Geodetic Survey; Revenue-Cutter Service; Life-Saving Service; Light-House Board; Marine-Hospital Service and all other miscellaneous accounts coming to this office.

Auditor for War Department.—The Auditor for the War Department receives and examines all accounts of salaries and incidental expenses of the offices of the Secretary of War and all bureaus and offices under his direction; all accounts relating to the military establishment, armories and arsenals, national cemeteries, fortifications, public buildings and grounds under the Chief of Engineers, rivers and harbors, the Military Academy, and to all other business within the jurisdiction of the Department of War, and certifies the balances arising thereon to the Division of Bookkeeping and Warrants, and sends a copy of each certificate to the Secretary of War. Salary $4,000.

The work is distributed among six divisions, as follows: Records Division, Civil Claims Division, Military Claims Division, Quartermaster's Division, Paymaster's Division, and Law Board.

Auditor for Interior Department.—The Auditor for the Interior Department is required to examine and settle all claims and accounts for receipts or expenditures of public moneys arising in the Department of the Interior or in any of the offices or bureaus under the jurisdiction of that Department. He is also charged with the supervision and the exercise of a large discretion with respect to all advances of public moneys to the various disbursing officers under the Interior Department. Salary $4,000. The work incidental to the performance of these duties is distributed among the following three divisions:

Land, Files, and Miscellaneous Division.—Accounts of receivers of public moneys as such and as special disbursing agents; of United States surveyors-general and deputy surveyors; of the disbursing clerk of the Interior Department and of the disbursing officers of the Geological Survey, Howard University, Government Hospital for the Insane, and Columbia Institution for the Deaf and Dumb; of the Commissioner of Patents, and of all receiving and disbursing officers of the Department of the Interior, exclusive of those in the Pension and Indian service.

Army and Navy Pension Division.—Accounts of United States pension agents on account of disbursements made under appropriations for army and navy pensions, salaries of pension agents, and all expenses of pension agencies; accounts under the several pension appropriations; claims for reimbursement from accrued pensions of expenses of last sickness and burial of pensioners under act of March 2, 1895; investigates pension checks in cases where the payees have died without indorsing them and makes recommendation to the Secretary of the Treasury regarding their payment; keeps and corrects from day to day pension rolls embracing the names of all pensioners of the United States.

Indian Division.—Accounts of United States Indian agents, special agents, inspectors, general superintendent of schools, superintendents of schools, supervisors of Indian schools, allotting agents, disbursing officers' special commissions, examiners of surveys, secretary of board of Indian commissioners, superintendents of Indian warehouses, receiving and shipping clerks, and other accounts of a miscellaneous nature relating to the Indian service, including the cost and transportation of goods and supplies.

Auditor for Navy Department.—The Auditor for the Navy Department examines and settles all accounts of the Navy Department, including the office of the Secretary of the Navy, and all offices and bureaus under his direction, certifying the balances arising thereon to the Secretary of the Treasury and sending a copy of each certificate to the Secretary of the Navy. Salary $4,000.

Paymasters' Accounts Division.—Adjusts accounts of pay officers of the Navy at navy-yards and stations and on vessels, accounts of the paymaster and quartermaster of the Marine Corps, and claims of subsidized railroads, and keeps individual accounts of seamen's deposits of savings.

Requisition and Prize Money Division.—Records requisitions and notes them for approval, keeps ledger accounts of navy appropriations, adjusts the account of General Account of Advances, examines monthly returns of all pay officers of the Navy, reports delinquent pay officers, settles prize-money claims, furnishes the Pension Office and Navy Department with service records of officers, seamen and marines, and has charge of the mail, records and files of the office. The Miscellaneous Claim Section adjusts claims for arrears of pay, bounty, etc., arising in the Navy and Marine Corps.

Navy Pay and Allotment Division.—Adjusts accounts of purchasing pay officers of the Navy, of naval attachés at United States legations in Europe, of the Navy Department's fiscal agent in London, of agents at coaling stations, and of the disbursing officer of the Navy Department, and keeps individual accounts of allotments of officers and men of the Navy.

Auditor for State and Other Departments.—The Auditor for the State and other Departments receives, examines and certifies the balances arising thereon to the Division of Bookkeeping and Warrants all accounts of salaries and incidental expenses of the offices of the Secretary of State, the Attorney-General, and the Secretary of Agriculture, and of all bureaus and offices under their direction; all accounts relating to all other business within the jurisdiction of the Departments of State, Justice, and Agriculture; all accounts relating to the Diplomatic and Consular Service, the Judiciary, United States courts, judgments of the United States courts, and Court of Claims, Executive Office, Civil Service Commission, Interstate Commerce Commission, Department of Labor, District of Columbia, Fish Commission, Court of

Claims and its judgments, Smithsonian Institution, Territorial government, the Senate, the House of Representatives, the Public Printer, Library of Congress, Botanic Garden, and accounts of all boards, commissions, and establishments of the Government not within the jurisdiction of any of the executive departments. He also examines and approves or disapproves all requisitions for advances of money made by all persons authorized to do so in any of the above-named Departments, commissions, or establishments. Salary $4,000.

Auditor for Post-Office Department.—The Auditor for the Post-Office Department receives, examines and adjusts all accounts relating to the postal service, or arising within the jurisdiction of the Post-Office Department. He is in a sense auditor, comptroller and register. His decisions on all settlements are final, unless an appeal to the Comptroller be taken within one year. He certifies balances due direct to the Postmaster-General instead of to the Treasury Department, as in the case of the other Auditors. He countersigns and registers the warrants upon the Treasury issued in liquidation of settlements; superintends the collecting of debts due the United States for the service of the Post-Office Department and all penalties imposed; directs suits and all legal proceedings in civil actions, and takes all legal measures to enforce the payment of money due the United States for the service of the Post-Office Department, and for this purpose has direct official relations with the Solicitor of the Treasury, Department of Justice. He receives and accepts, with the written consent of the Postmaster-General, offers of compromise under sections 295 and 405, Revised Statutes. He is the legal custodian of all contracts of the Post-Office Department. Salary $4,000. The work of the office is assigned as follows:

Deputy Auditors.—The two Deputy Auditors for the Post-Office Department are, by direction of the Auditor, charged with the following duties: (1) To examine and sign in the name of the Auditor all reports to the Postmaster-General for the payment of mail transportation; all certificates of vouchers from the bookkeeping division for the consideration of the Postmaster-General; all collection drafts upon delinquent and late postmasters; all certificates for the payment of money orders more than one year old, and all miscellaneous reports and papers, except letters and requisitions, and has control of the appropriations for furniture, carpets and miscellaneous items and purchases made thereunder. In the absence of the Auditor the Deputy Auditor performing the above duties acts as Auditor. (2) To examine and sign in the name of the Auditor all reports from the collecting division for the payment of balances due late postmasters, and all post-office warrants issued in payment of expenses of the postal service. Has supervision of the files of the Bureau, and receives bids, and personally superintends the sale and destruction of old money orders, money-order statements, and other papers annually, as prescribed by law, in conjunction with the officer of the Post-Office Department designated by the Postmaster-General. In the absence of the Auditor and the Deputy Auditor whose duties are first described, the Deputy charged with the last-named duties acts as Auditor.

Chief Clerk.—The Chief Clerk has charge of all division correspondence; the opening, reading and assigning of all letters received to their proper divisions; the reading, preparing for signature, and press copying of all letters sent. He supervises the duties of the Executive Clerk, and has charge of the record of attendance of clerks and employes; prepares requisitions for supplies, except those affecting the appropriations for the Bureau; and in the same manner has supervision of furniture and carpets and all repairs thereof, and of the carpenter shop, and of the laborers and charwomen.

Law Clerk.—The Law Clerk has charge of all civil suits instituted for the collection of amounts due the Post-Office Department; the submission to the Comptroller of all cases requiring his action; the consideration of offers of compromise of claims under sections 295 and 409, Revised Statutes, and the giving of legal advice in all matters pertaining to the work of this Bureau.

Disbursing Clerk.—The Disbursing Clerk has charge of the preparation of pay rolls, disbursement of appropriations for the salaries of officers and employes of the Bureau, the disposition of deposits on postal and money order accounts improperly transmitted to the Auditor, and the receipt and the dispatch of the registered mail addressed to and sent from the office.

There are seven subordinate divisions in the Bureau, viz:

The Bookkeeping Division.—Keeps the general ledger accounts of the postal service and an individual account with each postmaster and mail contractor; registers Postmaster-General's transfer drafts and all warrants drawn for transporting the mails, expenses of rural free delivery, purchase of supplies, and miscellaneous expenses of the postal service; prepares the quarterly and annual reports of receipts and expenditures; receives and settles postal accounts of postmasters, postal depositories, and the disbursing clerk of the Post-Office Department.

The Collecting Division.—Reviews the postal accounts in which differences are found by the Bookkeeping Division; collects balances due from and pays balances due postmasters on postal accounts; keeps a record of all changes of postmasters and the establishment and discontinuance of post-offices; has charge of postal files and conducts correspondence affecting this part of the work.

The Pay Division.—Adjusts and reports for payment all accounts for transportation of mails; audits accounts of post-office inspectors, superintendents and assistant superintendents Railway Mail Services, and sundry miscellaneous accounts, including post-office supplies.

The Inspecting Division.—Examines postmasters' statements of money-order business with accompanying orders as vouchers, comparing every money order with the credit claimed for its payment by the postmaster, detecting and correcting errors and verifying fees charged for issuing international and domestic orders, and conducts correspondence incident thereto.

The Assorting and Checking Division.—Assorts by States and offices of issue and arranges numerically by quarters all money orders received by the Inspecting Division and compares all money orders issued with the amounts postmasters debit themselves in their statements, detecting and correcting errors therein.

The Recording Division.—Audits and adjusts the money-order accounts of postmasters, and conducts correspondence relating thereto; adjusts money-order accounts of late postmasters by payment, transfer, or collection, as indicated by the balance; prepares quarterly and annual statements of money-order transactions of the United States, both domestic and international, with revenue derived therefrom for the information of the Secretary of the Treasury and the Postmaster-General.

The Foreign Division.—Adjusts and settles postal and money-order accounts with foreign countries; settles accounts of steamship companies for ocean transportation of mails; verifies all lists of money orders certified for payment in foreign countries and all lists received from foreign countries of orders certified for payment in the United States, and conducts the correspondence arising in connection with the above duties.

Treasurer of the United States.—The Treasurer of the United States is charged with the receipt and disbursement of all public moneys that may be deposited in the Treasury at Washington and the subtreasuries at Boston, New York, Philadelphia, Baltimore, Cincinnati, Chicago, St. Louis, New Orleans and San Francisco, and in the national-bank United States depositories; is trustee for bonds held to secure national-bank circulation and public deposits in national banks; is custodian of Indian trust-fund bonds and other public trusts; is fiscal agent for paying the interest on the public debt, and *ex-officio* commissioner of the sinking fund of the District of Columbia. Salary $6,000.

Assistant Treasurer of the United States.—Authorized by the Treasurer, with the consent of the Secretary of the Treasury, to act in the place and discharge any or all of the duties of the Treasurer of the United States. Salary $3,600.

Deputy Assistant Treasurer of the United States.—Authorized by the Treasurer, with the consent of the Secretary of the Treasury, to act in the place and discharge any or all of the duties of the Treasurer of the United States.

The duties are performed under the direction of the Treasurer in the following divisions:

Division of the Chief Clerk.—Opens and distributes all mail received, and has charge of the outgoing mail; answers all correspondence of a miscellaneous nature; keeps all records in relation to the employes of the office; has custody of the records and files; prepares estimates for appropriations and special reports; has charge of the messengers, laborers and charwomen; makes all requisitions and distributes supplies; has charge of all reports and circulars and the mailing thereof; issues duplicates of lost or destroyed interest and transfer checks, and Treasury warrants, and disburses the salaries of employes.

Division of the Cashier.—Keeps the transfer accounts of subtreasuries and accounts of disbursing officers; makes shipments of moneys to subtreasuries and banks; receives and makes payment of moneys on various accounts; makes collection of drafts; and prepares estimates for paper for United States notes and certificates, and orders the printing of required denominations.

Division of General Accounts.—Receives daily from the subtreasuries, and weekly from the national banks designated as depositories of the United States, reports on account of their receipts and expenditures for the Government; transfers funds to and from the subtreasuries, mints, and assay offices, and national-bank depositories; directs the payment of all warrants issued against appropriations by Congress; directs the shipment of standard silver dollars and fractional silver coin from the subtreasuries and mints; and examines, verifies, and combines the accounts of the above-named offices into one account, entitled the "General Account of Receipts and Expenditures of the Treasurer of the United States."

Division of National Banks.—Has custody of bonds held for national-bank circulation, for public deposits, and various public trusts, and makes collection of semi-annual duty.

Division of Loans.—Receives for payment by check called or matured United States bonds, interest notes, and bonds of the District of Columbia; issues and mails checks for interest on registered United States and District of Columbia bonds; records on numerical registers payment of such checks when returned by Treasury offices; receives refunding certificates for conversion into 4 per cent consols of 1907; and prepares for the proper auditor accounts relating to the obligations above referred to.

Division of Redemption.—Receives all currency, except national-bank notes, presented for redemption, which is examined, counted, canceled and delivered to the offices of the Secretary and Register for re-examination and recount; makes expert examinations of burned and badly mutilated currency presented; receives all registered mail; receives and counts all remittances from postmasters in Virginia, West Virginia, Maryland and the District of Columbia made in settlement of their accounts.

Division of Issues.—Prints the Treasury seal upon all issues of United States paper currency, separates sheets into single notes, and packs them in bundles of 4,000 each for delivery to the reserve vault. Counts and assorts silver and minor coins received for redemption and exchange.

Division of Accounts of Issue and Redemption.—Keeps the records and accounts relating to the issue and redemption of United States paper currency; accounts with the reserve fund and trust funds; prepares the daily statement of the cash in the Treasury, and tabulates reports from Treasury offices showing the various kinds of money received and disbursed on all accounts.

National Bank Redemption Agency.—Redeems national-bank notes and, after assorting them by banks of issue and charging them to the proper redemption accounts of the banks, delivers the assorted notes unfit for use to the Comptroller of the Currency for destruction and reissue, and sends those fit for use by express to the respective banks of issue.

Sinking Fund Office, District of Columbia.—Pays interest on miscellaneous bonded debt of the District of Columbia, invests money provided for sinking funds and various trust funds, and keeps all accounts pertaining thereto.

Register of the Treasury.—The Register of the Treasury signs and issues all bonds of the United States, the District of Columbia, the Pacific railroads, the Cherokee Indian lands, the Louisville and Portland Canal Company, and the Spanish indemnity, and transmits to the Treasurer of the United States schedules showing the name of every individual, corporation, etc., holding registered bonds and entitled to receive interest thereon. He signs all transfers conveying money from the United States Treasury to all the United States subtreasuries and depositories, and all the correspondence of the office. He receives, examines and registers coupon bonds exchanged for registered bonds or redeemed and registered bonds transferred and finally redeemed. He receives, examines, arranges and registers all redeemed United States notes, gold certificates, silver certificates, Treasury notes, detached interest coupons, interest checks on registered bonds, redeemed fractional currency, and all other United States securities redeemed and destroyed. Also, all customs, internal-revenue, and postage stamps condemned for imperfections and destroyed. He is represented on the committee having in charge the destruction by maceration of certain of the United States securities, etc., mentioned herein. Salary $4,000. The work is performed in two divisions, as follows:

Division of Loans.—The duties performed in this division include the issue, exchange, transfer and redemption of the bonds before mentioned, and the preparation of the schedules for payment of interest on the registered bonds, etc.; being in detail the receipt of new bonds after their preparation by the Bureau of Engraving and Printing and the care of same until required for issue; the issue of bonds upon warrant or certificate of the Secretary of the Treasury, showing the payment of accepted subscriptions for loans, and recording the same; the issue and recording of new registered bonds in place of those assigned by the parties or corporations in whose name they stood, and making a record of the cancellation of the original bonds; the recording of coupon and registered bonds redeemed; the examination of all assignments of registered bonds as to their sufficiency and regularity; the examination of all papers submitted by the representatives of corporations, of the estates of decedents, and of persons under legal disability; also proof of succession where bonds are held in a fiduciary capacity (these papers may refer to parties or corporations in the United States or in foreign countries); the keeping of ledger accounts with every individual, corporation, or other holder of registered bonds; the keeping of general accounts showing all changes in the amounts, and summary statements of transactions in connection with each loan; the preparation of quarterly, semi-annual and annual schedules on various loans for the payment of interest by the Treasurer of the United States, including the footing of the schedules; the preparation of the copy of the same for the printer and the examination of proof; the filing, arrangement and custody of the various books, records and bonds, and summary statements of interest, discounts, premiums and expenses of the public loans, together with all papers and reports connected with the business of the division.

Division of Notes, Coupons and Currency.—The duties of this division comprise the receiving, counting, examining, arranging and registering of all redeemed old demand notes, United States notes, gold certificates, silver certificates, Treasury notes, 4 per cent refunding certificates, one-year 5 per cent Treasury notes, two-year 5 per cent Treasury notes, two-year 5 per cent coupon Treasury notes, three-year compound-interest notes, act March 3, 1863; three-year 6 per cent compound-interest notes, act June 30, 1864, and redeemed fractional currency, detached interest coupons, exchanged and redeemed coupon bonds and interest checks on registered bonds; also all customs, internal-revenue and postage stamps condemned for imperfections and destroyed. This division represents the Register on the committee having in charge the destruction by maceration of certain of the United States securities, etc., referred to and the committee having in charge the destruction of discount, burnt and mutilated money. All redeemed interest-bearing securities of the United States, including certificates payable to order, are filed in this division.

Comptroller of the Currency.—The Comptroller of the Currency has, under the direction of the Secretary of the Treasury, the supervision of the national banks. Salary $5,000. The divisions of this Bureau are:

Organization Division.—The organization of national banks.

Issue Division.—The preparation and issue of national-bank circulation.

Reports Division.—The examination and consolidation of the reports of national banks.

Redemption Division.—The redemption and destruction of notes issued by national banks.

Director of the Mint.—The Director of the Mint has general supervision of all the mints and assay offices of the United States. He prescribes rules, to be approved by the Secretary of the Treasury, for the transaction of business at the mints and assay offices. He regulates the distribution of silver coin and the charges to be collected of depositors. He receives for adjustment the accounts of the mints and assay offices, superintends their expenditures and annual settlements, and makes special examinations of them when deemed necessary. All appointments, removals and transfers in the mints and assay offices are subject to his approval. The purchase of silver bullion and the allotment of its coinage are made by the Director, and, at his request, also transfers of the moneys in the mints and assay offices and advances from appropriations for the mint service.

Tests of the weight and fineness of coins struck at the mints are made in the assay laboratory under his charge. The values of the standard coins of foreign countries are annually estimated for custom-house and other public purposes. Two annual reports are prepared by the Director, one for the fiscal year, and printed in the Finance Report of the Secretary of the Treasury, the other for the calendar year, on the statistics of the production of the precious metals. Salary $4,500.

Commissioner of Internal Revenue.—The Commissioner makes assessment of and has general superintendence of the collection of all internal-revenue taxes, and of the enforcement of internal-revenue laws; employment of internal-revenue agents; compensation and duties of gaugers, storekeepers and other subordinate officers; the preparation and distribution of stamps, instructions, regulations, forms, blanks, hydrometers, stationery, etc. Salary $4,000.

The business of his office is divided into the several subject-matters and distributed among eleven divisions, as follows:

Appointments.—Discipline of official force, general files, registering and copying letters, distributing mail, issuing commissions and leaves of absence, printing and distributing blanks, blank books and stationery, and preparation of statistical records.

Law.—Seizures, forfeitures, compromises, suits, abatement and refunding claims, direct taxes, etc.; distraints and lands purchased on same for (or otherwise forfeited to) the United States.

Tobacco.—Matters relating to tobacco, snuff and cigars not in suit or in bond.

Accounts.—Revenue and disbursing accounts; allowances to collectors of internal revenue for salaries, etc.; purchase of blank books and other supplies for collectors and revenue agents; examination and reference of bills of agents, gaugers, etc.; miscellaneous claims under appropriation acts (except for abatement, refunding and drawback); and estimates for appropriations by Congress.

Distilled Spirits.—Matters pertaining to distilleries, distilled spirits, fermented liquors, wines, rectification, gaugers' instruments, approval of bonded warehouses, assignment of storekeepers, etc.

Stamps.—Preparation, safe-keeping, issue and redemption of all stamps, accounts pertaining thereto and preparation, custody and issue of steel dies for canceling stamps.

Assessments.—Assessments, bonded accounts, warehouse reports of storekeepers and gaugers, exports and drawbacks.

Revenue Agents.—General supervision of the work of revenue agents; examination and distribution of their reports; direction of their investigations and examination of their accounts.

Chemistry.—Analyses of all samples submitted for test of products subject to the payment of tax under internal-revenue laws; supervision of chemical work in collectors' offices, and other miscellaneous scientific work.

Documentary and Proprietary Stamps.—All matters pertaining to the use of stamps on documents, instruments, papers, etc., taxable under Schedule A, and all matters pertaining to the use of proprietary stamps.

Miscellaneous Division.—Matters pertaining to the collection of the tax on oleomargarine, filled cheese and mixed flour.

Commissioner of Navigation.—The Commissioner of Navigation is charged with general superintendence of the commercial marine and merchant seamen of the United States, except so far as supervision is lodged with other officers of the Government. He is specially charged with the decision of all questions relating to the issue of registers, enrollments and licenses of vesels and the filing of those documents, with the supervision of laws relating to the admeasurement, letters and numbers of vessels, and with the final decision of questions concerning the collection and refund of tonnage taxes. He is empowered to change the names of vessels, prepares annually a list of vessels of the United States, and reports annually to the Secretary of the Treasury. Attached to Depmt. of Commerce and Labor, 1903. Salary $3,600.

Superintendent of the Coast Survey.—The Coast and Geodetic Survey is charged with the survey of the Atlantic, Gulf and Pacific coasts of the United States, including the coasts of Alaska and other coasts under the jurisdiction of the United States; the survey of rivers to the head of tidewater or ship navigation; deep-sea soundings, temperature and current observations along the said coasts and throughout the Gulf Stream and Japan Stream flowing off from them; magnetic observations and gravity research; determinations of heights by geodetic leveling, and of geographical positions by lines of transcontinental triangulation, which, with other connecting triangulations and observations for latitude, longitude and azimuth, furnish points of reference for State surveys and connect the work on the Atlantic coast with that on the Pacific. Salary $5,000.

Results of the survey are published in the form of annual reports, which include professional papers of value; bulletins which give information deemed important for immediate publication; notices to mariners, issued monthly; tide tables, issued anually; charts upon various scales, including harbor charts. The Coast Survey was attached to Depmt. of Commerce and Labor, 1903.

National Bureau of Standards.—By an act of Congress approved March 3, 1901, the Office of Standard Weights and Measures of the Treasury Department, on July 1, 1901, was superseded by the National Bureau of Standards, the function of which is as follows: The custody of the standards; the comparison of the standards used in scientific investigations, engineering, manufacturing, commerce and educational institutions with the standards adopted or recognized by the Government; the construction, when necessary, of standards, their multiples and subdivisions; the testing and calibration of standard measuring apparatus; the solution of problems which arise in connection with standards; the determination of physical constants and properties of materials, when such data are of great importance to scientific or manufacturing interests and are not to be obtained of sufficient accuracy elsewhere. The Bureau is authorized to exercise its functions for the Government of the United States, for any State or municipal government within the United States, or for any scientific society, educational institution, firm, corporation, or individual within the United States engaged in manufacturing or other pursuits requiring the use of standards or standard measuring instruments. For all comparisons, calibrations, tests, or investigations, except those performed for the Government of the United States or State governments, a reasonable fee will be charged. Provision is also made for the purchase of a site and the erection of a suitable laboratory, its equipment with the most approved facilities, and the personnel necessary for the organization of the Bureau. The laboratory is in process of construction, and will be thoroughly equipped. The National Bureau of Standards was attached to and became a part of the Department of Commerce and Labor in 1903.

Supervising Inspector-General of Steam Vessels.—The Supervising Inspector-General superintends the administration of the steamboat-inspection laws, presides at the meeting of the Board of Supervising Inspectors, receives all reports and examines all accounts of inspectors. Salary $3,500.

The Board of Supervising Inspectors meets in Washington annually, on the third Wednesday in January, to establish regulations for carrying out the provisions of the steamboat-inspection laws.

Supervising Surgeon-General Marine-Hospital Service.—The Supervising Surgeon-General is charged with the supervision of the marine hospitals and other relief stations of the service, and the care of sick and disabled seamen taken from the merchant vessels of the United States (ocean, lake and river), and from the vessels of the Revenue-Marine and Light-House Services. This supervision includes the purveying of medical and other supplies, the assignment of and orders to medical officers, the examination of requisitions, vouchers and property returns, and all matters pertaining to the service.

Under his direction all applicants for pilots' licenses are examined for the detection of color-blindness. Ordinary seamen, on request of a master or agent, are examined physically to determine their fitness before shipment, and a like examination is made of the candidates for admission to the Revenue-Marine Service and candidates for appointment as surfmen in the United States Life-Saving Service.

He examines also and passes upon the medical certificates of claimants for pensions under the laws of the Life-Saving Service.

Under the act of February 15, 1893, he is charged with the framing of regulations for the prevention of the introduction of contagious diseases and the prevention of their spread; and he is also charged with the conduct of the quarantine service of the United States. He has the direction of laboratories established to investigate the cause of contagious diseases and matters relating to the public health, and publishes each week, under the title of "Public Health Reports," sanitary reports received from all parts of the United States and (through the State Department) from all foreign countries.

Under the law of March 28, 1890, known as the interstate quarantine law, he is charged with preparing the rules and regulations, under direction of the Secretary of the Treasury, necessary to prevent the introduction of certain contagious diseases from one State to another, and he has also supervision of the medical inspection of alien immigrants, which, under the law of March 3, 1891, is conducted by the medical officers of the Marine-Hospital Service. Salary $4,000.

Bureau of Immigration.—The Commissioner-General of Immigration shall administer the Chinese-exclusion laws. He shall prepare and revise all regulations pertaining to immigration, and shall supervise the expenditures of the appropriations for "Expenses regulating immigration," "Enforcement of the alien contract-labor laws," and the "Enforcement of the Chinese-exclusion laws," and certify same to the accounting officers of the Treasury Department. All inspection and other officers in the service after appointment will be assigned to duty by the Commissioner-General, and their official duties and conduct will be supervised by him, and all correspondence connected with the Chinese and immigration laws shall be conducted by him. All appeals from the decisions of the boards of special inquiry at the several ports touching the right of an alien to land in the United States shall be decided by him, subject to the approval or disapproval of the Secretary of the Treasury. He shall cause all alleged violations of the alien contract-labor laws to be investigated and submit such evidence as he may be able to obtain to the proper United States district attorney for prosecution, if deemed advisable. He shall collect and compile all statistics relative to immigration, and make his annual report in writing. The Bureau of Immigration was attached to and became a part of the Department of Commerce and Labor in 1903.

General Superintendent of the Life-Saving Service.—It is the duty of the General Superintendent to supervise the organization and government of the employes of the service; to prepare and revise regulations therefor as may be necessary; to supervise the expenditure of all appropriations made for the support and maintenance of the Life-Saving Service; to examine the accounts of disbursements of the district superintendents and to certify the same to the accounting officers of the Treasury Department; to examine the property returns of the keepers of the several stations and see that all public property thereto belonging is properly accounted for; to acquaint himself, as far as practicable, with all means employed in foreign countries which may seem to advantageously affect the interest of the service, and to cause to be properly investigated all plans, devices and inventions for the improvement of life-saving apparatus for use at the stations which may appear to be meritorious and available; to exercise supervision over the selection of sites for new stations the establishment of which may be authorized by law, or for old ones the removal of which may be made necessary by the encroachment of the sea or by other causes; to prepare and submit to the Secretary of the Treasury estimates for the support of the service; to collect and compile the statistics of marine disasters, as contemplated by the act of June 20, 1874, and to submit to the Secretary of the Treasury, for transmission to Congress, an annual report of the expenditures of the moneys appropriated for the maintenance of the Life-Saving Service, and of the operations of said service during the year. Salary $4,000.

Bureau of Statistics.—The Chief of the Bureau of Statistics collects and publishes the statistics of our foreign commerce, embracing tables showing the imports and exports, respectively, by countries and customs districts; the transit trade inward and outward by countries and by customs districts; imported commodities warehoused, withdrawn from, and remaining in warehouse; the imports of merchandise entered for consumption, showing quantity, value, rates of duty and amounts of duty collected on each article or class of articles; the inward and outward movement of tonnage in our foreign trade and the countries whence entered and for which cleared, distinguishing the nationalities of the foreign vessels. Salary $3,000.

The publications of the Bureau are as follows: Annual Report on Commerce and Navigation; Annual Statistical Abstract of the United States; Monthly Reports on Commerce and Finance; Monthly Reports of Total Values of Foreign Commerce and Immigration; Monthly Report of Exports of Breadstuffs, Provisions, Petroleum and Cotton.

The Bureau of Statistics, with its several divisions, was attached to and became a part of the Department of Labor and Commerce in 1903, but remained under the same Chief.

Bureau of Engraving and Printing.—The Bureau of Engraving and Printing designs, engraves, prints and finishes all of the securities and other similar work of the Government printed from steel plates, embracing United States notes, bonds and certificates, national-bank notes, internal revenue, postage and customs stamps, Treasury drafts and checks, disbursing officers' checks, licenses, commissions, patent and pension certificates and portraits authorized by law of deceased members of Congress and other public officers. Salary of chief, $4,500.

Light-House Board.—The Light-House Board has charge, under the superintendence of the Secretary of the Treasury, of all administrative duties relating to the construction and maintenance of light-houses, light-vessels, beacons, fog signals, buoys and their appendages. The Board and Establishment were attached to the Department of Commerce and Labor in 1903.

THE DEPARTMENT OF WAR.

Secretary of War.—The Secretary of War is the head of the War Department, and performs such duties as are required of him by law or may be enjoined upon him by the President concerning the military service.

He is charged by law with the supervision of all estimates of appropriations for the expenses of the Department, including the military establishment; of all purchases of army supplies; of all expenditures for the support, transportation and maintenance of the Army, and of such expenditures of a civil nature as may be placed by Congress under his direction.

He also has supervision of the United States Military Academy at West Point and of military education in the Army, of the Board of Ordnance and Fortification, of the various battlefield commissions and of the publication of the Official Records of the War of the Rebellion.

He has charge of all matters relating to national defence and seacoast fortifications, army ordnance, river and harbor improvements, the prevention of obstruction to navigation and the establishment of harbor lines and all plans and locations of bridges authorized by Congress to be constructed over the navigable waters of the United States require his approval. He also has charge of the establishment or abandonment of military posts, and of all matters relating to leases, revocable licenses and all other privileges upon lands under the control of the War Department. Salary $8,000.

Assistant Secretary of War.—To the Assistant Secretary of War is assigned the general direction and supervision of all matters relating to rivers and harbors; bridges over navigable waters of the United States; leases, revocable licenses and all other privileges upon lands under the control of the War Department; inspections relating to the military establishment; Record and Pension Office business; recruiting service, discharges, commutation of rations, courts-martial and other questions relating to enlisted men, including clemency cases and matters relating to prisoners at military prisons and penitentiaries.

He also has charge of all matters relating to the militia; the supervision of miscellaneous claims and accounts; preliminary examination of questions relating to Cuba and the Philippines and final disposition of all ordinary routine matters relating to said islands; matters relating to national cemeteries, boards of survey, open-market purchases and medals of honor. Salary $4,500.

Chief Clerk.—Under the immediate direction of the Secretary and the Assistant Secretary of War, the Chief Clerk has the custody of the records and files and is charged with supervision of the receipt, distribution and transmission of the official mail and the correspondence of the Secretary's office; of all matters affecting the civil force of the War Department, the departments at large and the military governments; War Department printing and binding and official advertising and job printing for the Army and the War Department; requisitions for and routine business pertaining to militia supplies; War Department supplies; routine calls for information from the records; expenditures from appropriations for contingent expenses and stationery for the War Department and matters of routine character not requiring the personal action of the Secretary or the Assistant Secretary of War. Salary $3,000.

Military Bureaus of the War Department.—The chiefs of the military bureaus of the War Department are officers of the Regular Army of the United States and a part of the military establishment, viz:

The Adjutant-General promulgates all orders of a military character of the President, the Secretary of War and the Commanding General of the Army and conducts the correspondence between the latter and the Army; receives reports and returns pertaining to the Army; prepares commissions, appointments and acceptances of resignations for issuance; and, under the immediate direction of the Secretary of War, has charge of the recruiting service. Salary $7,500.

The Inspector-General, with his assistants, inspects all military commands and stations, the schools of application, the military departments of all colleges and schools at which officers of the Army are detailed, all depots, rendezvous, armories, arsenals, fortifications and public works of every kind under charge of or carried on by officers of the Army; and also the money accounts of all disbursing officers of the Army. Salary $5,500.

The Quartermaster-General, aided by assistants, provides transportation for the Army; also clothing and equipage, horses, mules and wagons, vessels, forage, stationery and other miscellaneous quartermaster stores and property for the Army, and of clothing and equipage for the militia; constructs necessary buildings, wharves, roads and bridges at military posts and repairs the same; furnishes water, heating and lighting apparatus; pays guides, spies and interpreters and is in charge of national cemeteries. Salary $5,500.

The Commissary-General of Subsistence has administrative control of the Subsistence Department; the disbursement of its appropriations; the providing of rations and their issue to the Army; the purchase and distribution of articles authorized to be kept for sale to officers and enlisted men; the administrative examination of accounts of subsistence funds preliminary to their settlement by the proper accounting officers of the Treasury; and the examination and settlement of returns of subsistence supplies. Salary $5,500.

The Surgeon-General, under the immediate direction of the Secretary of War, is charged with the administrative duties of the Medical Department; the designation of the stations of medical officers, and the issuing of all orders and instructions relating to their professional duties. He directs as to the selection, purchase and distribution of the medical supplies of the Army. The Army Medical Museum and the official publications of the Surgeon-General's Office are also under his direct control. Salary $5,500.

The Paymaster-General is charged with the payment of the officers and enlisted men of the Army and civil employes of the Department; with furnishing funds to his officers and seeing that they duly account for the same and with a preliminary examination of their accounts; also with the payment of Treasury certificates for bounty, back pay, etc., and balances due deceased officers and soldiers of the Volunteer and Regular Army. Salary $5,500.

The Chief of Engineers commands the Corps of Engineers, which is charged with all duties relating to construction and repair of fortifications, whether permanent or temporary; with torpedoes for coast defence; with all works of defence; with all military roads and bridges and with such surveys as may be required for these objects, or the movement of armies in the field. It is also charged with the river and harbor improvements, with military and geographical explorations and surveys, with the survey of the lakes and with any other engineer work specially assigned to the corps by acts of Congress or orders of the Secretary of War. Salary $5,500.

The Chief of Ordnance commands the Ordnance Department, the duties of which consist in providing, preserving, distributing and accounting for every description of artillery, small arms and all the munitions of war which may be required for the fortresses of the country, the armies in the field and for the whole body of the militia of the Union. In these duties are comprised that of determining the general principles of construction and of prescribing in detail the models and forms of all military weapons employed in war. They comprise also the duty of prescribing the regulations for the proof and inspection of all these weapons, for maintaining uniformity and economy in their fabrication, for insuring their good quality and for their preservation and distribution. Salary $5,500.

The Judge-Advocate-General is directed by law to "receive, review and cause to be recorded the proceedings of all courts-martial, courts of inquiry and military commissions." He also furnishes the Secretary of War information and advice relating to lands under control of the War Department and reports and opinions upon legal questions arising under the laws, regulations and customs pertaining to the Army and upon questions arising under the civil law; reports upon applications for clemency in the cases of military prisoners; examines and prepares legal papers relating to the erection of bridges over navigable waters; drafts bonds and examines those given to the United States by disbursing officers, colleges and others; examines, revises and drafts charges and specifications against officers and soldiers; and also drafts and examines deeds, contracts, licenses, leases and legal papers generally. Salary $5,500.

The Chief Signal Officer is charged with the supervision of all military signal duties, and of books, papers and devices connected therewith, including telegraph and telephone apparatus and the necessary meteorological instruments for use on target ranges and other military uses; the construction, repair and operation of military telegraph lines and the duty of collecting and transmitting information for the Army by telegraph or otherwise and all other duties usually pertaining to military signaling. Salary $5,500.

The Chief of the Record and Pension Office is charged by law with the custody of the military and hospital records of the volunteer armies and the transaction of the pension and other business of the War Department connected therewith, including the publication of the Official Records of the War of the Rebellion. The work of the office embraces all subjects relating to the service of organizations, officers and enlisted men of the volunteer armies and includes the answer to calls from the Commissioner of Pensions, the accounting officers of the Treasury and others for information required in the adjudication of claims against the National and State governments, the adjustment of the individual records of officers and enlisted men under the general and special legislation of Congress relating thereto and the general correspondence of the Department relating to the volunteer forces. The records of the office include those of the late Provost-Marshal-General's Bureau and the Bureau of Refugees, Freedmen and Abandoned Lands; also the Confederate archives, embracing those relating to the legislative, executive and judicial branches of the Confederate Government. Salary $5,500.

THE DEPARTMENT OF JUSTICE.

Attorney-General.—The Attorney-General is the head of the Department of Justice and the chief law officer of the Government. He represents the United States in matters involving legal questions; he gives his advice and opinion, when they are required by the President or by the heads of the other Executive Departments, on questions of law arising in the administration of their respective departments; he exercises a general superintendence and direction over United States attorneys and marshals in all judicial districts in the States and Territories; and he provides special counsel for the United States whenever required by any department of the Government. Salary $8,000.

He is assisted by a Chief Clerk and other clerks and employes in the executive management of the business of the Department.

A Law Clerk, who is also an examiner of titles, assists the Attorney-General in the investigation of legal questions and in the preparation of opinions.

Solicitor-General.—The Solicitor-General assists the Attorney-General in the performance of his general duties and by special provision of law, in the case of a vacancy in the office of Attorney-General or in his absence, exercises all these duties. Except when the Attorney-General otherwise directs, the Attorney-General and Solicitor-General conduct and argue all cases in the Supreme Court and in the Court of Claims in which the United States is interested; and, when the Attorney-General so directs, any such case in any court of the United States may be conducted and argued by the Solicitor-General; and in the same way the Solicitor-General may be sent by the Attorney-General to attend to the interests of the United

States in any State court or elsewhere. Salary $7,000.

Assistant Attorneys-General.—Four Assistant Attorneys-General assist the Attorney-General and the Solicitor-General in the performance of their duties. They assist in the argument of causes in the Supreme Court and in the preparation of legal opinions; one is charged with the conduct of the defence of the United States in the Court of Claims and has seven assistant attorneys to assist him; one with the defence of the Indian depredation claims and another with the defence of the claims before the Spanish Treaty Claims Commission. Salaries $5,000 each.

Under the act of 1870 the different law officers of the Executive Departments exercise their functions under the supervision and control of the Attorney-General. They are the Assistant Attorney-General for the Department of the Interior, the Assistant Attorney-General for the Post-Office Department, the Solicitor of the Treasury, the Solicitor of Internal Revenue, Treasury Department and the Solicitor for the Department of State.

Solicitor for Department of State.—The Solicitor is the law officer of the Department and investigates questions referred to him by the Secretary and Assistant Secretaries covering matters of both municipal and international law. Salary $4,000.

Solicitor of the Treasury.—The Solicitor of the Treasury takes cognizance of all frauds or attempted frauds on the customs revenue. He is charged by law with duties regarding the compromise of debts and with a supervision over suits for the collection of moneys due the United States, excepting those due under internal-revenue laws. His approval is required of official bonds of United States Assistant Treasurers, Department disbursing clerks, collectors of internal revenue, the Secretary and the Chief Clerk of the Department of Agriculture. As the law officer of the Treasury Department, many matters are referred to him for his examination and opinion arising under the customs, navigation, banking and registry laws and in the administration of the Department. He is also charged by law with the supervision of suits and proceedings arising out of the provisions of law governing national banking associations in which the United States and any of its agents or officers are parties; also with the charge, release and sale of lands acquired in payment of debt, excepting those acquired under internal-revenue laws. Salary $4,500.

Solicitor of Internal Revenue.—A Solicitor of Internal Revenue was added to the Internal-Revenue Office corps by the act of July 13, 1866 (14 Stat., 170), but by the act of June 22, 1870 (16 Stat., 162), organizing the Department of Justice, the Solicitor was formally transferred to that Department. He is the law officer and law adviser of the Commissioner. The only duties of which mention is made by law are in connection with compromise cases, section 3229, Revised Statutes. Salary $4,500.

Assistant Attorney-General for the Post-Office Department.—The Assistant Attorney-General for the Post-Office Department is the chief law officer of that Department. His duties are to give opinions on questions of law relating to the work of the Department presented to him by the Postmaster-General, his assistants, the superintendents and chiefs of the several divisions and bureaus and the postmasters throughout the country. To him are referred for consideration and recommendation applications for pardon for crimes committed against the postal laws, certifications by the Auditor for the Post-Office Department of proposed compromises of liabilities against the United States and of the remission of fines, penalties and forfeitures under the statutes; all claims for loss presented by postmasters, occasioned by fire, burglary and other unavoidable casualty; and all cases of alleged violations of the fraud and lottery law. (The act of September 30, 1890, as amended by the act of March 2, 1895.) Discussions on questions of law, oral and in writing, are heard by him. Salary $4,500.

Assistant Attorney-General for the Interior Department.—The Assistant Attorney-General is the chief law officer of this Department. When requested he advises the Secretary and Assistant Secretaries upon questions of law arising in the administration of the Department. All appeals from the General Land Office are sent to his office for consideration. Oral arguments are heard by him in the more important cases, or by brief; and decisions are prepared under his supervision for the signature of the Secretary or First Assistant Secretary, as the case may be. The Assistant Attorney-General is aided in this and his other work by twenty assistant attorneys. Salary $5,000.

THE POST-OFFICE DEPARTMENT.

Postmaster-General.—The Postmaster-General has the direction and management of the Post-Office Department. He appoints all officers and employes of the Department, except the four Assistant Postmasters-General, who are appointed by the President, by and with the advice and consent of the Senate; appoints all postmasters whose compensation does not exceed $1,000; makes postal treaties with foreign Governments, by and with the advice and consent of the President, awards and executes contracts and directs the management of the domestic and foreign mail service. Salary $8,000.

First Assistant Postmaster-General.—The First Assistant Postmaster-General (salary $4,000) has charge of the following divisions, viz:

Salary and Allowance Division.—The duty of readjusting the salaries of Presidential postmasters; the consideration of allowances to postmasters for advertising, canceling machines and motors and power therefor, clerk hire, fuel, light, miscellaneous and incidental expenses, rent; the supervision of correspondence with Civil Service Commission relative to clerks in post-offices; the supervision of correspondence relative to bonds of clerks in post-offices, box rents, charges against clerks in post-offices, hours of closing post-offices, key deposits, leave of absence of Presidential postmasters; the establishment of stations and substations; the consideration of lease cases and changes of site of Presidential post-offices.

Free Delivery Division.—Under the immediate direction of the General Superintendent, the inauguration of the delivery and collection of the mails in cities entitled to the service; maintenance and improvement of the service in free delivery districts and its extension to contiguous territory; appointment and discipline of letter carriers; supplying street-letter boxes and other equipment and exercising, through postmasters, a general control over the system in cities and towns. Investigation and mapping of rural free-delivery routes, initiatory to the installation of a daily delivery and collection of the mails in country districts; establishment of the service by independent routes and by county; furnishing United States collection boxes and other supplies; appointment and discipline of rural carriers and direct supervision and maintenance of the service.

Division of Post-Office Supplies.—The duty of purchasing stationery, blanks and books, wrapping paper, twine, letter balances and canceling stamps and supplying the Department and post-offices with such quantities of these supplies as they are upon requisition entitled to receive.

Money-Order Division.—Under the immediate direction of the Superintendent, who has supervision and control thereof, including the domestic money-order business and the superintendence of the international money-order correspondence with foreign countries, as well as the preparation of postal conventions for the exchange of money orders therewith and the conduct of correspondence relating to these subjects.

Dead-Letter Office.—Under the immediate direction of the Superintendent, who is charged with the treatment of all unmailable and undelivered mail matter which is sent to it for disposition; the enforcement of the prompt sending of such matter according to regulations; the duty of noting and correcting errors of postmasters connected with the delivery or withholding of mail matter; the investigation, by correspondence, of complaints made with reference thereto; the verification and allowance of claims for credit by postmasters for postage-due stamps affixed to undelivered matter; the examination and forwarding or return of all letters which have failed of delivery; the inspection and return to the country of origin of undelivered foreign matter; recording and restoration to owners of letters and parcels which contain valuable inclosures; care and disposition of all money, negotiable paper, and other valuable articles found in undelivered matter and correspondence, both foreign and domestic, relating to these subjects.

Correspondence Division.—To this division are referred inquiries received from postmasters and others relative to the construction of postal laws and regulations, disputes regarding the delivery of mail matter, and all correspondence of a miscellaneous character.

Second Assistant Postmaster-General.—The Second Assistant Postmaster-General has charge of the transportation of all mails. Salary $4,000. His office embraces four divisions and two offices, viz:

The Railway Adjustment Division prepares cases authorizing the transportation of mails by railroads, cable and electric roads, wagons and pneumatic tubes in cities, and by mail messengers, establishment of railway postal-car service, and changes in existing service; prepares orders and instructions for the weighing of mails, receives the returns and computes basis of pay therefrom; prepares cases for the adjustment of allowances to railroads for carrying the mails and for postal cars, and attends to all correspondence relating to these matters.

The Contract Division prepares all advertisements inviting proposals for star and steamboat service, receives the proposals, prepares orders for the award of contracts, attends to the execution of contracts, prepares cases and orders for the establishment of new service or charges in existing service, attends to all correspondence relating thereto, and prepares statistics and reports of mail service required by law.

The Division of Inspection is charged with the examination of monthly and special reports of postmasters as to performance of mail service by contractors and carriers; the preparation of cases and orders for deductions for non-performance of service and for the imposition of fines for delinquencies of contractors and carriers, of authorization for payment of railway postal clerks, of certifications of service to the Sixth Auditor, and the correspondence relative to non-performance of contract requirements for carrying mails.

The Mail Equipment Division is charged with the preparation of advertisements inviting proposals for furnishing mail bags, mail locks and keys, label cases, and mail-bag cord fasteners; the receipt of proposals and the preparation of contracts therefor, the issuing of such articles for the use of the service, the repairing of the same, the keeping of records and accounts, and the preparation of all correspondence incident to these duties.

The Office of Railway Mail Service has charge of the railway mail service and the railway post-office clerks, prepares for the Second Assistant Postmaster-General cases for the appointment, removal, promotion and reduction of said clerks, conducts the correspondence, and issues the orders relative to moving the mails on railroad trains; has charge of the dispatch and distribution of mail matter in railway post-office cars and post-offices; and conducts the weighing of mails when ordered.

The Office of Foreign Mails has charge of all foreign postal arrangements (except those relating to the money-order system), including the preparation of postal conventions and the regulations for their execution, as well as the consideration of questions arising under them; and conducts the correspondence relative thereto both with foreign governments and private citizens. It also has the supervision of the ocean mail steamship service in all its details, including the settlement of the accounts with steamship companies for the conveyance of mails from the United States to foreign countries.

Third Assistant Postmaster-General.—The Third Assistant Postmaster-General (salary $4,000) has charge of the postal subjects named below, embraced in the following divisions of his Bureau:

System of Postal Finance.—The financial system, involving the collection of all moneys due the Department, the payment, by warrant or draft, of accounts chargeable against appropriations for the postal service, the designation of depositories for postal funds, and the supervision and instruction of all postmasters relative to the disposition of the postal revenue from whatever source.

Postage Stamp Supplies and Postmasters' Accounts.—The supervision and collection of postal revenue through the issue of postage stamps, stamped envelopes, newspaper wrappers and postal cards, and the keeping of postmasters' accounts relative thereto; also the supplying of postmasters with envelopes for their official use, including registered package and registered-tag envelopes.

Classification Division.—The general control of all business relating to the classification of domestic mail matter and the rates of postage thereon, including the determination of the admissibility of publications to the second class of mail matter and their right to continue in that class, the general supervision of those therein, and the instruction of postmasters relative thereto.

The Registry Office.—The supervision and management of the registered mail service and the conduct of correspondence relating thereto and the preparation of record forms used therein; the establishment and control of all through registry exchanges, the compilation of registry statistics, and the instruction of all postmasters in registry matters.

Redemption Division.—The duty of receiving, disposing of and authorizing credits for redeemed, damaged and unsalable supplies of stamped paper returned by postmasters.

Files and Records Division.—The duty of receiving, distributing and indexing all papers coming into the office, of dispatching and recording all papers sent from the office, and of keeping and attending to the office files and records.

The Bureau of the Third Assistant Postmaster-General also has charge of the Special Delivery System, and the supervision of proposals and letting of contracts for furnishing the Post-Office Department with postage stamps, stamped envelopes, newspaper wrappers and postal cards, registered-package, tag, official and dead-letter envelopes, and envelopes for the use of each of the several Executive Departments.

Fourth Assistant Postmaster-General.—The Fourth Assistant Postmaster-General (salary $4,000) has charge of the Bureau including the Divisions of Appointments, of Bonds and Commissions, and of Post-Office Inspectors and Mail Depredations.

Division of Appointments.—The duty of preparing all cases for establishment, discontinuance and change of name or site of post-offices, and for the appointment of all postmasters, and attending to all correspondence consequent thereto.

Division of Bonds and Commissions.—The duty of receiving and recording appointments; sending out papers for postmasters and their assistants to qualify; receiving, entering and filing their bonds (and approval of same) and oaths, and issuing the commissions for postmasters.

Division of Post-Office Inspectors and Mail Depredations.—To this office is intrusted the general supervision of the work of the post-office inspectors, and the consideration and adjustment of their accounts for salary and expenses. To it are referred all complaints of losses or irregularities in the mails and all reported violations of the postal laws.

THE DEPARTMENT OF THE NAVY.

Secretary of the Navy.—The Secretary of the Navy performs such duties as the President of the United States, who is Commander-in-Chief, may assign him, and has the general superintendence of construction, manning, armament, equipment and employment of vessels of war. Salary $8,000.

The Chief Clerk has general charge of the records and correspondence of the Secretary's office. Salary $3,000.

Assistant Secretary of the Navy.—The Assistant Secretary of the Navy performs such duties in the Navy Department as shall be prescribed by the Secretary of the Navy or may be required by law. Salary $4,500.

Bureau of Navigation.—The duties of the Bureau of Navigation comprise all that relates to the promulgation, record and enforcement of the Secretary's orders to the fleets and to the officers of the Navy, except such orders as pertain to the office of the Secretary; the education of officers and men, including the Naval Academy and technical schools for officers (except the War College and Torpedo School), the apprentice establishment, and schools for the technical education of enlisted men, and to the supervision and control of the Naval Home, Philadelphia; the enlistment and discharge of all enlisted persons, including appointed petty officsre for general and special service. It controls all rendezvous and receiving ships, and provides transportation for all enlisted persons and appointed petty officers; establishes the complement of the crews of all vessels in commission; keeps the records of service of all squadrons, ships, officers and men, and prepares the annual Naval Register for publication; has under its direction the preparation, revision and enforcement of all tactics, drill books, signal codes, cipher codes and the uniform regulations. To Depmt. of Com. and Lab., 1903.

Bureau of Yards and Docks.—The duties of the Bureau of Yards and Docks comprise all that relates to the planning, construction and maintenance of all docks (including dry docks), wharves, slips, piers, quay walls and buildings of all kinds, for whatever purpose needed, within the limits of the navy-yards, but not of hospitals and magazines outside of those limits, nor of buildings for which it does not estimate. It repairs and furnishes all buildings, stores and offices in the several navy-yards, and is charged with the purchase, sale and transfer of all land and buildings connected with the navy-yards; has under its sole control the general administration of the navy-yards; provides and has sole control of all landings, derricks, shears, cranes, sewers, dredging, railway tracks, cars and wheels, trucks, grading, paving, walks, shade trees, inclosure walls and fences, ditching, reservoirs, cisterns, fire engines and apparatus, all watchmen, and all things necessary, including labor, for the cleaning of the yards and the protection of the public property.

Bureau of Equipment.—The duties of the Bureau of Equipment comprise all that relates to the equipment of all vessels with rigging, sails, anchors, yeoman's stores, furniture not provided by other bureaus, navigation stores and supplies of all kinds, including nautical and navigating instruments and books, stationery and blank books for commanding and navigating officers ashore and afloat, binnacles, flags, signal lights, running lights, and standing lights on board vessels, including all electrical apparatus for lighting purposes and searchlights, logs, leads, lines and glasses, log books, ships' libraries, illuminating oil for all purposes, except that used in the engineer department of steamers, and fuel for steamers, the ropewalks, and the shops for making anchors and cables, rigging, sails, galleys and cooking utensils, the Naval Observatory, Nautical Almanac, compass offices and pilotage. It has under its control the Hydrographic Office, the collection of foreign surveys, publication and supply charts, sailing directions and nautical works, and the dissemination of nautical and hydrographic information to the Navy and mercantile marine.

Bureau of Ordnance.—The duties of the Bureau of Ordnance comprise all that relates to the manufacture or purchase of offensive and defensive arms and apparatus (including torpedoes), all ammunition, war explosives, vessels for submarine torpedo service, magazines on shore and of all machinery, apparatus, equipment and things for use with the above; the recommending the nature of the armament to be carried by vessels, and the material, kind, and qualities of ship's armor and dimensions of gun turrets; charged with the carrying power of vessels, as determined by the Bureau of Construction and Repair, and fixes the location and command of the armament, and distributes the thickness of armor; places the armament on board of vessels, and determines the method of construction of armories and ammunition rooms, the latter in conjunction with the Bureau of Construction and Repair; purchases torpedo boats intended to be carried by ships, and has charge of all their details of whatever nature, and prescribes the armament to be given to all torpedo vessels.

Bureau of Construction and Repair.—The duties of the Bureau of Construction and Repair comprise all that relates to designing, building, fitting and repairing the hulls of vessels, spars, boats, capstans, windlasses, steering gear, ventilating apparatus, tanks, ballast, casks, blocks, furniture for ships' use of the kind made in the navy-yards, and lumber, plates and tools for sea stores of the kind used by it in building vessels; also the turrets and armor plating, after the material, quality and distribution of thickness have been determined by the Bureau of Ordnance; has control of all vessels building and under repair, and is responsible that vessels in ordinary do not go to decay for want of proper examination on the part of constructors in the yards; and has charge of the docking of vessels.

Bureau of Steam Engineering.—The duties of the Bureau of Steam Engineering comprise all that relates to the designing, building, fitting out, repairing and engineering of the steam machinery used for the propulsion of naval vessels, and will also include steam pumps, steam heaters and connections, and the steam machinery necessary for actuating the apparatus by which turrets are turned.

Bureau of Medicine and Surgery.—The duties of the Bureau of Medicine and Surgery comprise all that relates to laboratories, naval hospitals and dispensaries, the furnishing of all supplies, medicines and instruments required in the Medical Department of the Navy; has sole control of all buildings erected for its purposes, and determines upon and furnishes all the stores, etc., used in the medical and hospital departments, materials, instruments, means and appliances of every kind used for its purposes, and controls their inspection, storing, transportation and preparation; designs, erects, furnishes and maintains all the buildings constructed for its purposes outside the limits of the navy-yards, and for which it may have estimated; is charged with the purchase, sale and transfer of all land and buildings in connection therewith, and with the preservation of the public property under its control; designs the various buildings erected within navy-yards for its purposes so far only as their internal arrangements are concerned, and after their completion has exclusive control of the same, and makes all contracts for and superintends all the work done under it.

Bureau of Supplies and Accounts.—The duties of the Bureau of Supplies and Accounts comprise all that relates to supplying the Navy with provisions, clothing, small stores, fresh water and contingent stores in the Paymaster's Department; the reception, care and custody of all stores not exempt by order from the general storekeepers' system, and the keeping of a proper system of accounts regarding the same; the purchase, at shore stations within the United States, of stores and supplies and their custody, transfer and issue, upon authorized requisitions, except those of the Bureau of Medicine and Surgery, the Marine Corps, and those exempt by Regulation Circular No. 51.

Office of the Judge-Advocate-General.—It is the duty of the Judge-Advocate-General, under the direction of the Secretary of the Navy, to revise, report upon and have recorded the proceedings of all courts-martial, courts of inquiry and boards for the examination of officers for retirement and promotion in the naval service; to prepare the charges and specifications and the necessary orders convening general courts-martial in cases where such courts are ordered by the Secretary of the Navy; to prepare general orders promulgating the final action of the reviewing authority in general court-martial cases; to prepare the necessary orders convening courts if inquiry, boards for the examination of officers for promotion and retirement, and for the examination of candidates for appointment in the Medical Corps, and to conduct all official correspondence relating to courts-martial, courts of inquiry, and such boards; to examine and report upon claims of every description filed in the Department; to conduct the departmental correspondence relating to the business connected with the increase of the Navy, including the preparation of advertisements inviting proposals for the construction of new vessels, or for furnishing materials for use in their construction; of forms of proposals to be used by bidders in offering to construct such vessels or furnish such materials, and forms of contracts to be entered into and bonds to be furnished by such bidders on the acceptance of their proposals, and including also the departmental correspondence relating to the plans, specifications and materials of new vessels and to proposed changes in the same; to consider and report upon all matters which may be referred to him involving questions of law, regulations and discipline and requiring the Department's action; the meaning or construction of the general regulations of the Navy, including those relating to rank or precedence, or to appointments, commissions, promotions and retirements, and to the validity of proceedings in courts-martial cases; to conduct the correspondence with the Attorney-General relative to questions of statutory construction submitted for his opinion thereon; to the institution of suits, at the instance of the Navy Department, and to the defence of suits brought by private parties against the officers or agents of the Department; to answer calls from the Department of Justice and the Court of Claims for information and papers relating to cases pending in that court and affecting the Navy Department; to examine and report upon the official bonds of pay officers, and all questions presented to the Department relating to pay and traveling expenses of officers; to attend to all correspondence relating to the care of naval prisons and prisoners, and to consider and act upon applications for the removal of the mark of desertion standing against the names of enlisted men of the Navy or Marine Corps.

Marine Corps.—The Commandant of the Marine Corps is responsible to the Secretary of the Navy for the general efficiency and discipline of the corps; makes such distribution of officers and men for duty at the several shore stations as shall appear to him to be most advantageous for the interests of the service; furnishes guards for vessels of the Navy, according to the authorized scale of allowance; under the direction of the Secretary of the Navy, issues orders for the movement of officers and troops, and such other orders and instructions for their guidance as may be necessary; and has charge and exercises general supervision and control of the recruiting service of the corps, and of the necessary expenses thereof, including the establishment of recruiting offices.

THE DEPARTMENT OF THE INTERIOR.

Secretary of the Interior.—The Secretary of the Interior is charged with the supervision of public business relating to patents for inventions; pensions and bounty lands; the public lands and surveys; the Indians; education; railroads; the Geological Survey; the census; the Hot Springs Reservation, Arkansas; Yellowstone National Park, Wyoming, and the Yosemite, Sequoia and General Grant Parks, California; forest reservations; distribution of appropriations for agricultural and mechanical colleges in the States and Territories; the custody and distribution of certain public documents; and supervision of certain hospitals and eleemosynary institutions in the District of Columbia. He also exercises certain powers and duties in relation to the Territories of the United States. Salary $8,000.

First Assistant Secretary of the Interior.—To the First Assistant Secretary of the Interior is assigned the direction and supervision of matters relating to official bonds and bonds for the fulfillment of contracts; signing requisitions for Treasury warrants; business relating to the Territories; contracts and open-market purchases of Indian supplies; surveys, allotments, deeds and leases of Indian lands; Indian annuities and trust funds; depredation claims; business from the office of the Commissioner of Railroads; repayments of money for public lands erroneously sold and cash indemnity for swamp lands; Hot Springs of Arkansas; Yellowstone, Yosemite and other national parks; and acts as Secretary in the absence of that officer. Salary $4,500.

Assistant Secretary of the Interior.—To the Assistant Secretary of the Interior is assigned the consideration and decision of appeals from the Commissioner of Pensions and questions relating to violations of the pension law; appeals from the administrative action of the Commissioner of Patents; countersigning of letters patent; business from the office of the Commissioner of Education, Government Hospital for the Insane, Freedmen's Hospital, Columbia Institution for the Deaf and Dumb, education of the blind of the District of Columbia; admission to practice and disbarment of attorneys before the Department and bureaus; approval of requests and vouchers for advertising, and vouchers for transportation and other expenses of inspectors and special agents, and acts as Secretary in the absence of that officer and of the First Assistant Secretary. Salary $4,000.

Chief Clerk.—The Chief Clerk of the Department of the Interior has the general supervision of the clerks and employes; of the order of business, records and correspondence of the Secretary's office; of all expenditures from appropriations for contingent expenses, stationery and printing for the Department and bureaus; enforcement of the general regulations of the Department; also the superintendence of buildings occupied by the Interior Department. Is required by law to edit and publish the Official Register of the United States. Salary $3,000.

Commissioner of Patents.—The Commissioner of Patents is charged with the administration of the patent laws, and supervises all matters relating to the issue of letters patent for new and useful discoveries, inventions and improvements, and the registration of trade-marks and labels. He is aided by an Assistant Commissioner, chief clerk, three examiners-in-chief, an examiner of interferences, and thirty-six principal examiners. Salary $5,000.

Commissioner of Pensions.—The Commissioner of Pensions supervises the examination and adjudication of all claims arising under laws passed by Congress granting bounty land or pension on account of service in the Army or Navy during the Revolutionary War and all subsequent wars in which the United States has been engaged. He is aided by two Deputy Commissioners and the chief clerk of the Bureau, each of whom has supervision over business arising in divisions of the Bureau assigned, under order of the Commissioner, to his immediate charge. Salary $5,000.

Commissioner of the General Land Office.—The Commissioner of the General Land Office is charged with the survey, management and sale of the public domain, and the issuing of titles therefor, whether derived from confirmations of grants made by former governments, by sales, donations or grants for schools, railroads, military bounties or public improvements. He is aided by an Assistant Commissioner and Chief Clerk. Salary $5,000.

Commissioner of Indian Affairs.—The Commissioner of Indian Affairs has charge of the several tribes of Indians in the States and Territories. He issues instructions to and receives reports from agents, special agents and school superintendents; superintends the purchase, transportation and distribution of presents and annuities; and reports annually the relations of the Government with each tribe. He is aided by an Assistant Commissioner, who under the law also performs the duties of chief clerk. Salary $4,000.

Commissioner of Education.—The duties of the Commissioner of Education are to collect such statistics and facts as shall show the condition and progress of education in the several States and Territories, and to diffuse such information respecting the organization and management of schools and school systems and methods of teaching as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country. Salary $3,500.

Commissioner of Railroads.—The Commissioner of Railroads is charged with the duty of prescribing a system of reports to be rendered to him by the railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan or credit or subsidy in bonds or lands; to examine the books and accounts of each of said railroad companies once in each fiscal year, and at such other times as may be deemed by him necessary to determine the correctness of any report received from them; to assist the Government directors of any of said railway companies in all matters which come under their cognizance, whenever they may officially request such assistance, to see that the laws relating to said companies are enforced; to furnish such information to the several departments of the Government in regard to tariffs for freight and passengers and in regard to the accounts of said railroad companies as may be by them required, or, in the absence of any request therefor, as he may deem expedient for the interest of the Government; and to make an annual report to the Secretary of the Interior on the first day of November on the condition of each of said railroad companies, their road, accounts and affairs for the fiscal year ending June 30 immediately preceding. Salary $4,500.

Director of the Geological Survey.—The Director of the Geological Survey has charge of the classification of the public lands and examination of the geological structure, mineral resources and products of the national domain, and of survey of forest reserves. Salary $2,250.

Director of the Census.—The Director (heretofore entitled Superintendent) of the Census supervises the taking of the census of the United States, Alaska and the Hawaiian Islands, and the subsequent arrangement, compilation and publication of the statistics collected. Salary $4,000. A permanent Census Bureau was created by act of Congress, approved March 7, 1902. In 1903, it was transferred to the newly-created Department of Commerce and Labor.

THE DEPARTMENT OF AGRICULTURE.

Secretary of Agriculture.—The Secretary of Agriculture exercises personal supervision of public business relating to the agricultural industry. He appoints all the officers and employes of the Department with the exception of the Assistant Secretary and the Chief of the Weather Bureau, who are appointed by the President, and directs the management of all the divisions, offices and bureaus embraced in the Department. He exercises advisory supervision over the agricultural experiment stations deriving support from the National Treasury, and has control of the quarantine stations for imported cattle, and of interstate quarantine rendered necessary by contagious cattle diseases, including the inspection and transportation of cattle and the inspection of cattle-carrying vessels.

He is charged especially with carrying out the chief purpose of the Department, which is "to acquire and diffuse among the people of the United States useful information on subjects connected with agriculture in the most comprehensive sense of that word and to procure, propagate and distribute among the people new and valuable seeds of plants." Salary $8,000.

Assistant Secretary of Agriculture.—The Assistant Secretary of Agriculture performs such duties as may be prescribed by law or prescribed by the Secretary, and has immediate supervision of the work of the Division of Seeds, the Section of Seed and Plant Introduction, the Supply Division, the Library and the Museum of the United States Department of Agriculture. He also becomes the Acting Secretary of Agriculture in the absence of the Secretary. Salary $4,500.

Chief Clerk.—The Chief Clerk has the general supervision of the clerks and employes; of the order of business, records and correspondence of the Secretary's office; of all expenditures from appropriations for contingent expenses, stationery, etc.; of the enforcement of the general regulations of the Department; and of the buildings occupied by the Department of Agriculture. Salary $2,500.

The Weather Bureau.—The Chief of the Weather Bureau, under the direction of the Secretary of Agriculture, has charge of the forecasting of weather; the issue of storm warnings; the display of weather and flood signals for the benefit of agriculture, commerce and navigation; the gauging and reporting of rivers; the maintenance and operation of seacoast telegraph lines, and the collection and transmission of marine intelligence for the benefit of commerce and navigation; the reporting of temperature and rainfall conditions for the cotton interests; the display of frost and cold-wave signals; the distribution of meteorological information in the interests of agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States or as are essential for the proper execution of the foregoing duties. Salary of chief $5,000.

Bureau of Animal Industry.—The Bureau of Animal Industry makes investigations as to the existence of dangerous communicable diseases of live stock; superintends the measures for their extirpation, and makes original investigations as to the nature and prevention of such diseases. It inspects live stock and their products slaughtered for food consumption; has charge of the inspection of import and export animals, of the inspection of vessels for the transportation of export animals, and of the quarantine stations for imported neat cattle, other ruminants and swine; generally supervises the interstate movement of animals and reports on the condition and means of improving the animal industries of the country. It makes special investigations in regard to dairy subjects, and inspects and certifies dairy products for export. Salary of chief $4,000.

Bureau of Chemistry.—The Bureau of Chemistry makes investigations of soils, fertilizers and agricultural products, and such analyses as pertain in general to the interests of agriculture. It investigates the composition and adulteration of foods and the composition of field products in relation to their nutritive value and to the constituents which they derive from the soil, fertilizers and the air. It inspects imported food products and excludes from entry those injurious to health. It inspects food products exported to foreign countries where physical and chemical tests are required for such products. It co-operates with the chemists of the agricultural experiment stations in all matters pertaining to the relations of chemistry to agricultural interests. It also cooperates with all the other scientific divisions of the Department in all matters pertaining to chemistry in their work, and conducts investigations of a chemical nature for other Departments of the Government at the request of their respective Secretaries. Salary of chief $3,000.

Division of Statistics.—The Statistician collects information as to crop production and the numbers and status of farm animals, through a corps of county and township correspondents and State agents, and obtains similar information from foreign countries through special agents, assisted by consular, agricultural and commercial authorities. He records, tabulates and co-ördinates statistics of agricultural production, distribution and consumption, the authorized data of Governments, institutes, societies, boards of trade and individual experts; and issues a monthly crop report for the information of producers and consumers. Salary of chief $3,000.

Section of Foreign Markets.—The Section of

Foreign Markets has for its object the extension of the agricultural export trade of the United States. It investigates the requirements of foreign markets, studies the conditions of demand and supply as disclosed by the records of production, importation and exportation, inquires into the obstacles confronting trade extension, and disseminates through printed reports and otherwise the information collected.

Division of Accounts and Disbursements.—The Division of Accounts and Disbursements audits and pays all accounts and adjusts claims against the Department; decides questions involving the expenditure of public funds; prepares advertisements, schedules and contracts for annual supplies, leases and agreements; issues requisitions for the purchase of supplies, requests for passenger and freight transportation; prepares the annual estimates of appropriations, and attends to all other business relating to the financial interests of the Department.

Office of Experiment Stations.—The Office of Experiment Stations represents the Department in its relations to the agricultural colleges and experiment stations, which are now in operation in all the States and Territories, and directly manages the experiment stations in Alaska, Hawaii and Porto Rico. It seeks to promote the interests of agricultural education and investigation throughout the United States. It collects and disseminates general information regarding the colleges and stations, and publishes accounts of agricultural investigations at home and abroad. It also indicates lines of inquiry, aids in the conduct of co-operative experiments, reports upon the expenditures and work of the stations and in general furnishes them with such advice and assistance as will best promote the purposes for which they were established. It is also charged with investigations on the nutritive value and economy of human foods and on irrigation, which are largely conducted in co-operation with the colleges and stations.

Division of Entomology.—The Entomologist obtains and disseminates information regarding injurious insects; investigates insects sent him in order to give appropriate remedies; conducts investigations of this character in different parts of the country, and mounts and arranges specimens for illustrative and museum purposes. Salary of chief $2,500.

Division of Biological Survey.—The Division of Biological Survey studies the geographic distribution of animals and plants, and maps the natural life of zones of the country; it also investigates the economic relations of birds and mammals, recommends measures for the preservation of beneficial and the destruction of injurious species, and has been charged with carrying into effect the provisions of the Federal law for the importation and protection of birds, contained in the act of Congress of May 25, 1900. Salary of chief $2,500.

Bureau of Forestry.—The Bureau of Forestry gives practical assistance to tree planters, and to farmers, lumbermen and others in the conservative handling of forest lands; investigates methods and trees for planting in the treeless West; studies commercially valuable trees to determine their special uses in forestry, and investigates forest fires and other forest problems. Salary of chief $3,000.

Bureau of Plant Industry.—The Bureau of Plant Industry studies plant life in all its relations to agriculture. It includes vegatable, pathological and physiological investigations, botanical investigations and experiments, pomological investigations, grass and forage plant investigations, experimental gardens and grounds, the Arlington experimental farm, Congressional seed distribution, seed and plant introduction and tea-culture experiments. Salary of chief $3,000.

Vegetable, Pathological and Physiological Investigations.—These investigations have for their objects the study of diseases of agricultural crops and economic plants, nutrition of plants, rotation of crops and the general application of the principles of pathology and physiology to agriculture, the problems of crop improvement, and the production of better varieties of agricultural plants and of crops resistant to disease by means of breeding and selection.

Botanical Investigations and Experiments.—This office investigates botanical problems, including the purity and value of seeds; methods of controlling the spread of weeds and preventing their introduction into this country; the injurious effects and antidotes in the case of poisonous plants; the native plant resources of the country, and other phases of economic botany.

Grass and Forage Plant Investigations.—This office studies the natural history, geographical distribution and uses of grasses and forage plants, as well as their adaptation to special soils and climates; introduces promising foreign varieties, and investigates the methods of cultivation of native and foreign sorts.

Pomological Investigations.—This branch of the Bureau collects and distributes information in regard to the fruit interests of the United States; investigates the habits and peculiar qualities of fruits; their adaptability to various soils and climates, and conditions of culture. It studies the methods of harvesting, handling and storing fruits, with a view to improving our own markets and extending them into foreign countries.

Experimental Gardens and Grounds.—This branch is charged with the care and ornamentation of the parks surrounding the Department buildings; with the duties connected with the conservatories and gardens, and with the testing and propagating of economic plants. It carries on investigations for the purpose of determining the best methods of improving the culture of plants under glass, and other lines of investigation connected with intensive horticulture.

Congressional Seed Distribution.—This office is charged with the purchase and distribution of valuable seed. The seeds are distributed in allotments to Senators, Representatives, Delegates in Congress, and the agricultural experiment stations, and also by the Secretary of Agriculture, as provided for by the law.

Seed and Plant Introduction.—This work has for its object the securing from all parts of the world of seeds and plants of new and valuable agricultural crops adapted to different parts of the United States.

Arlington Experimental Farm.—The experiment farm is designed ultimately to become an adjunct to all branches of the Department. It will carry on investigations in the testing of agricultural crops, fruits and vegetables.

Tea-Culture Experiments.—This branch of the Bureau has for its object the study of tea with a view to producing it in this country. Experiments are conducted in tea culture, and methods of growing, curing and handling the tea are being worked out. The work is carried on at Summerville, S. C.

Bureau of Soils.—The Bureau of Soils has for its object the investigation of soils in their relation to crops, the mapping of soils, the investigation and mapping of alkali lands and investigations of the growth, curing and fermentation of tobacco. Salary of chief $3,000.

Office of Public-Road Inquiries.—The Office of Public-Road Inquiries collects information concerning the systems of road management throughout the United States, conducts and promotes investigations and experiments regarding the best methods of road making and road-making materials, and prepares publications on this subject.

Division of Publications.—The Division of Publications edits all bulletins, reports and circulars, and exercises supervision of the printing, publishing and illustration work of the Department, with the exception of the Weather Bureau, and directs the distribution of all publications with the exception of those turned over by law to the Superintendent of Documents for sale at the price affixed by him; it issues, in the form of press notices, official information of interest to agriculturists, and distributes to agricultural publications and writers synopses of Department publications. It is also charged with the preparation and printing of Farmers' Bulletins, four-fifths of which are distributed upon the orders of Senators, Representatives and Delegates in Congress.

Librarian.—The Librarian of the Department library purchases all books and periodicals and supervises their arrangement and cataloguing; directs the publication of a quarterly bulletin containing current accessions to the library, also the preparation of bibliographies and the publication and distribution of printed index cards for the Year-book and for other publications of the Department. Salary $1,800.

Interstate Commerce Commission.—This is a Commission, independent of the regular departments, created January 4, 1887, for the purpose of inquiring into the business of all common carriers, whose roads or lines passed from one State into another, and it has power to correct abuses as to freight rates, determine and correct wrongs in shipments and charges, see that railways are equipped with safety appliances, seek mediation in case of strikes, gather reports from all sources bearing on interstate commerce. It consists of five members appointed by the President. Their salaries are $7,500 each.

Department of Commerce and Labor.—This new department, with the rank of a Cabinet office was created by Act of Congress in 1903. It had long been talked of as a relief to the Treasury Department, especially as to statistics and to such supervision of commercial and labor questions as modern conditions required. It is administered through bureaus, some of which have been specially created, as that of Commerce and Corporations, while others of a kindred nature have been brought over from the other departments. George B. Cortelyou became the first incumbent. Salary, $8,000. The bureaus and divisions transferred to it are the Lighthouse Board and Establishment; Steam-Inspection Service; Bureau of Navigation; Shipping Commissioners; Bureau of Standards; Coast Survey; Bureau and Commissioners of Immigration; Bureau of Statistics; Census office; Depmt. of Labor; Fish Commissioners; Bureau of Foreign Commerce; Alaska Fisheries.

Civil Service Commission. The purpose of the Civil Service Act, approved Jan. 16, 1883, is "to regulate and improve the civil service of the United States." It provides for the appointment of three commissioners, whose duty is to aid the President in preparing rules to carry the act into effect, and to provide, among other things, for open competitive examinations for testing the fitness of applicants for the public service, the filling of classified positions by selections. The act also provides for investigations touching the enforcement of the rules promulgated, and forbids, under penalty of fine or imprisonment, or both, the solicitation by any person in the service of the United States of contributions to be used for political purposes from persons in such service, or the collection of such contributions by any person in a Government building. Salary of each Commissioner $3,000.

Judicial Branch of the Government.

UNITED STATES SUPREME COURT.

Investment of Power.—The judicial power of the United States is invested, by the Constitution, in one Supreme Court and such inferior courts as Congress may establish. Judges of both the Supreme and inferior courts hold office during good behavior, and receive salaries that may not be diminished during their continuance in office.

Extent of Power.—This judicial power extends to all cases in law or equity arising under the Constitution, the laws of the United States and the treaties with foreign countries.

Organization.—The Supreme Court of the United States is composed of one Chief Justice and eight Associate Justices, appointed by the President and confirmed by the Senate, any six of whom constitute a quorum. The Justices have precedence according to the date of their commissions, or if two commissions bear the same date, then according to their ages.

Vacancies.—In case of a vacancy in the office of the Chief Justice, his duties devolve on the Associate Justice next in precedence to him until another associate is appointed.

Minor Officials.—The Supreme Court has power to appoint a chief clerk, deputy clerks and reporters.

United States Marshal.—The United States Marshal must attend the sessions of the Supreme Court and serve and execute its writs, processes and orders.

Sessions.—The Supreme Court holds one annual session beginning in October and ending in the following spring or early summer. It may hold special or adjourned terms.

Jurisdiction.—The United States Supreme Court has exclusive jurisdiction where a State is party to a suit, except where the dispute is between a State and its citizens, or between a State and the citizens of another State or aliens, in which last-named cases it has original but not exclusive jurisdiction. The trial of issues of fact in the Supreme Court, in actions at law against citizens, is by jury.

Oath.—Justices of the Supreme, Circuit and District Courts of the United States are sworn to administer justice without respect to persons and to do equal right to poor and rich, and that they will faithfully and impartially discharge and perform all the duties incumbent on them according to the best of their abilities and understanding and agreeably to the laws and Constitution of the United States.

Prohibition.—No Judge of the Supreme Court can exercise the profession or employment of counsel or attorney, or engage in legal practice during his term of office; if he does, he is liable to impeachment and removal.

Old Age.—A Supreme Court Judge, having held office for ten years, having reached the age of seventy years, and resigning, is entitled to the same annual salary he was receiving when he resigned.

Salary.—The salary of the Chief Justice of the Supreme Court is $13,500, and of each of the Associate Justices, $12,500.

DISTRICT AND CIRCUIT COURTS.

Judicial Districts.—The judicial system of the United States reaches down to the people in the form of subdivisions of the country into Judicial Districts, each of which contains a United States District Court, presided over by a District Judge, at a salary of $5,000. They are courts of original jurisdiction, and appeals may be taken from them to the higher courts. As a rule, each State constitutes a Judicial District, but the larger and more populous States contain two or more. New York has four such Districts, Pennsylvania three, Texas three, and so on. In 1902 there were eighty-two of such Judicial Districts and District Courts in the United States.

Circuit Courts.—Another division of the judicial system of the United States is into Judicial Circuits, in each one of which is held a Circuit Court, or a court intermediate between the District Courts and the Supreme Court. They have both original and appellate jurisdiction, and are presided over by two or three judges, according to size and importance. These Judges are appointed by the President of the United States for life, and receive a salary of $7,000 each.

Assignments.—A member of the Supreme Court of the United States is assigned to each one of these Circuits, and he is expected to visit it at stated intervals and to sit with the other Judges in certain cases. Appeals are taken from the Circuit Courts to the Supreme Court.

Number.—There are nine of these Circuit Courts in the United States. The First Circuit embraces Maine, Massachusetts, New Hampshire, Rhode Island. Second, Connecticut, New York, Vermont. Third, Delaware, New Jersey, Pennsylvania. Fourth, Maryland, North Carolina, South Carolina, Virginia, West Virginia. Fifth, Alabama, Florida, Georgia, Louisiana, Mississippi, Texas. Sixth, Kentucky, Michigan, Ohio, Tennessee. Seventh, Illinois, Indiana, Wisconsin. Eighth, Arkansas, Colorado, Indian and Oklahoma Territories, Iowa, Kansas, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, South Dakota, Utah, Wyoming. Ninth, Alaska, Arizona, California, Idaho, Montana, Nevada, Oregon, Washington.

Circuit Courts of Appeal.—These constitute a system of new or modern courts created for the purpose of relieving the work of the Supreme Court, by hearing and determining finally a certain class of appeals mentioned in the law creating them. They are commensurate in number and extent with the Circuit Courts, and a full bench consists of the Justice of the Supreme Court for the Circuit, and the Judges of each Circuit. District Judges may also sit in these courts.

Court of Claims.—This court was established by act of Congress, February 24, 1855. The object of its creation was to adjudicate claims against the United States which, before its creation, properly came before Congress for adjustment and appropriation. It has proved to be a most useful court, relieving Congressional Committees of labor not suited to them, securing fuller and more satisfactory investigation and judgment, and ridding such claims of partisan pressure. It is composed of a Chief Justice and four Associate Justices. Appeals lie from its decisions to the Supreme Court. Salaries $4,500 each.

Other Courts.—Other courts of a national or semi-national character are the United States Court of Private Land Claims, presided over by a Chief Justice and four Associates, at a salary of $4,500 each; and a Court of Appeals for the District of Columbia, presided over by a Chief Justice, at a salary of $6,500, and two Justices, at a salary of $6,000 each.

Legislative Branch of the Government.

THE CONGRESS OF THE UNITED STATES.

Composition.—The legislative power of the government is vested in its Congress. The Congress is composed of two branches or houses, an upper and a lower, or a Senate and House of Representatives; the former standing for the States integrally and federally, the latter for the people at large. It is not uncommon to designate the House of Representatives as the popular branch of Congress. The period of time, two years, for which a member of the House of Representatives is elected, determines the period of a Congress. The Congress must meet once a year, and the time of meeting is the first Monday in December. It may be called into special session by the President. The first regular session of each Congress is called the long session, and terminates at the will of Congress. The second regular session is called the short session, and terminates on the fourth of March of every second year. Congresses are denominated by numbers; thus, the one which met on December 2, 1901, was the Fifty-seventh Congress. The number of States fixes the number of members for the Senate. The population as ascertained at each census, and the apportionment law, fix the number of members of the House of Representatives.

Senate.—The United States Senate is composed of two members from each State; that is, when there are forty-five States there are ninety Senators. The qualifications and manner of electing Senators, the power and duty of the Senate, are prescribed in detail in the Constitution. The length of a Senatorial term is six years and the salary of each Senator $5,000 a year. The Senate is regarded as the higher or upper branch of the Congress. It differs in power from the House of Representatives, or lower and popular branch of the Congress, in the respect that it has a voice in the making of treaties and the selection of Executive appointments. At the same time it must defer in its power to the House, in the respect that it cannot originate bills for raising revenue. The Senate has the sole power to try impeachments. The Vice-President of the United States is the presiding officer, or President, of the Senate, but the Senate may elect a President pro tem. In legislating, bills presented by members of the Senate, or coming from the House of Representatives are generally referred to committees, standing or special, for examination and report. They are then presented to the Senate in a form agreed upon by a majority of the committee, and become the subject of debate and vote. Debates are, as a rule, fuller and more prolonged than in the House, and the machinery for facilitating legislation is more antiquated and clumsy. When the Senate cannot by a vote agree to the terms of a bill passed by the House, or *vice versa,* it is referred to a committee of conference of the two Houses, which committee generally succeeds in reconciling the differences.

House of Representatives.—This body is composed of members elected in their districts by popular vote, and whose number is regulated by the population as ascertained at each decennial census. The Congress fixes by law the apportionment after each census. The apportionment after the census of 1900, was 193.291 inhabitants for each member of the House. The legislatures of the States divide the districts accordingly, or where they fail to do so, they make up their quota by electing Congressmen-at-large. Each new House of Representatives elects its presiding officer, called the Speaker, who assigns the various committees and presides over the deliberations. Legislative work is carried on largely through the committees, whose reports of bills are open to debate on the floor. The rules of the House are far stricter than those of the Senate, and legislation is carried on more rapidly. Both Senate and House have full control of their own parliamentary rules and of the qualification and control of their own members. A member of the House of Representatives is commonly called a "Congressman," though this term is equally applicable to a Senator. Salary $5,000. (See APPORTIONMENT.)

GOVERNORS OF THE STATES.

STATES AND TERRITORIES.	NAMES AND POLITICS.	Expiration of Term.	Terms. Years.	Salaries.
Alabama	W. D. Jelks, D.	January 8, 1907	4	$5,000
Alaska	John G. Brady, R.	....	4	5,000
Arizona	Alex. O. Brodie, R.	December —, 1906	4	3,000
Arkansas	Jeff Davis, D.	January —, 1907	2	3,000
California	Geo. C. Pardee, R.	January —, 1907	4	6,000
Colorado	Jesse F. McDonald, R.	January 10, 1907	2	5,000
Connecticut	Henry Roberts, R.	January —, 1907	2	4,000
Delaware	Preston Lea, R.	January —, 1909	4	2,000
Florida	Napoleon B. Broward, D.	January —, 1908	4	3,500
Georgia	J. M. Terrell, D.	June —, 1907	2	3,000
Hawaii	George R. Carter, R.	June —, 1907	4	5,000
Idaho	Frank R. Gooding, R.	January —, 1907	2	5,000
Illinois	Charles S. Dencen, R.	January —, 1909	4	6,000
Indiana	J. Frank Hanley, R.	January —, 1909	4	8,000
Iowa	Albert B. Cummins, R.	January —, 1906	2	5,000
Kansas	Edward W. Hoch, R.	January 11, 1907	2	3,000
Kentucky	J. C. W. Beckham, D.	December 10, 1908	4	6,000
Louisiana	N. C. Blanchard, D.	May 1, 1908	4	5,000
Maine	Wm. J. Cobb, R.	January —, 1908	2	2,000
Maryland	Edwin Warfield, D.	January 8, 1908	4	4,500
Massachusetts	Wm. L. Douglas, D.	January 5, 1906	1	8,000
Michigan	Fred. M. Warner, R.	January 1, 1907	2	4.000
Minnesota	John A. Johnson, D.	January 1, 1907	2	5,000
Mississippi	J. K. Vandaman, D.	January 1, 1908	4	4,500
Missouri	Joseph W. Folk, D.	January —, 1909	4	5,000
Montana	Joseph K. Toole, D.	January 4, 1909	4	5.000
Nebraska	John H. Mickey, R.	January 6, 1907	2	2,500
Nevada	John Sparks, D.	January —, 1907	4	4.000
New Hampshire	John McLane, R.	January —, 1907	2	2,000
New Jersey	Edward C. Stokes, R.	January —, 1908	3	10,000
New Mexico	Miguel A. Otero, R.	January —, 1906	4	3,000
New York	Frank W. Higgins, R.	January 1, 1907	2	10,000
North Carolina	Robert B. Glenn, D.	January 1, 1909	4	4.000
North Dakota	E. Y. Searles, R.	January —, 1907	2	3.000
Ohio	Myron T. Herrick, R.	January 8, 1906	2	8.000
Oklahoma	Thomas B. Ferguson, R.	April —, 1905	4	2.400
Oregon	Geo. E. Chamberlain, D.	January —, 1907	4	1,500
Pennsylvania	Samuel W. Pennypacker, R.	January 17, 1907	4	10.000
Philippines	Luke E. Wright, D.	——— 1905	4	15.000
Porto Rico	Beekman Winthrop, R.	——— 1906	4	8,000
Rhode Island	George H. Utter, R.	January 1, 1906	1	3,000
South Carolina	D. C. Heyward, D.	January —, 1907	2	3,000
South Dakota	Samuel H. Elrod, R.	January 1, 1905	2	3.000
Tennessee	James B. Frazier, D.	January 15, 1905	2	4,000
Texas	S. W. T. Lanham, D.	January 1, 1907	2	4.000
Utah	John C. Cutler, R.	January —, 1909	4	4.000
Vermont	John J. Bell, R.	October —, 1906	2	1.500
Virginia	A. J. Montague, D.	February 1, 1906	4	5,000
Washington	Albert E. Mead, R.	January —, 1908	4	4,000
West Virginia	W. M. O. Dawson, R.	March 4, 1909	4	5.000
Wisconsin	Robert M. Lafollette, R.	January 1, 1907	2	5.000
Wyoming	Bryant B. Brooks, R.	November —, 1906	4	2 500

CAPITALS OF THE STATES.

Alabama	Montgomery.
Alaska Territory	Sitka, soon Juneau.
Arizona Territory	Phœnix.
Arkansas	Little Rock.
California	Sacramento.
Colorado	Denver.
Connecticut	Hartford.
Delaware	Dover.
District of Columbia	Washington.
Florida	Tallahassee.
Georgia	Atlanta.
Idaho	Boisé.
Illinois	Springfield.
Indiana	Indianapolis.
Indian Territory	
Iowa	Des Moines.
Kansas	Topeka.
Kentucky	Frankfort.
Louisiana	Baton Rouge.
Maine	Augusta.
Maryland	Annapolis.
Massachusetts	Boston.
Michigan	Lansing.
Minnesota	St. Paul.
Mississippi	Jackson.
Missouri	Jefferson City.
Montana	Helena.
Nebraska	Lincoln.
Nevada	Carson City.
New Hampshire	Concord.
New Jersey	Trenton.
New Mexico Territory	Santa Fé.
New York	Albany.
North Carolina	Raleigh.
North Dakota	Bismarck.
Ohio	Columbus.
Oklahoma Territory	Guthrie.
Oregon	Salem.
Pennsylvania	Harrisburg.
Rhode Island	Providence.
South Carolina	Columbia.
South Dakota	Pierre.
Tennessee	Nashville.
Texas	Austin.
Utah	Salt Lake City.
Vermont	Montpelier.
Virginia	Richmond.
Washington	Olympia.
West Virginia	Charleston.
Wisconsin	Madison.
Wyoming	Cheyenne.

STATE AND TERRITORIAL LEGISLATURES—SESSIONS, TERMS, SALARIES.

States and Territories.	Frequency of Sessions.	Limit of Sessions.	Term of Senators. Years.	Term of Representatives. Years.	Salaries per Day During Session, or Annual.	Allow Mileage.	Next Regular Meeting Date.
Alabama	Quadrennial	60 days	4	4	$4 per day	Yes	January 8, 1907
Arizona	Biennial	60 days	2	2	$4 per day	Yes	January 16, 1905
Arkansas	Biennial	60 days	4	2	$6 per day	Yes	January 9, 1905
California	Biennial	60 days	4	2	$8 per day	Yes	January 3, 1905
Colorado	Biennial	90 days	4	2	$7 per day	Yes	January 2, 1905
Connecticut	Biennial	No limit	2	2	$300 per year	Yes	January 4, 1905
Delaware	Biennial	60 days	4	2	$300 per year	No	January 3, 1905
Florida	Biennial	60 days	4	2	$6 per day	Yes	April 4, 1905
Georgia	Annual	50 days	2	2	$4 per day	Yes	June 22, 1904
Hawaii	Biennial	60 days	4	2	$400 per year	Yes	February 18, 1904
Idaho	Biennial	60 days	2	2	$5 per day	Yes	January 2, 1905
Illinios	Biennial	No limit	4	2	$1,000 per session	Yes	January 4, 1905
Indiana	Biennial	60 days	4	2	$5 per day	Yes	January 5, 1905
Iowa	Biennial	No limit	4	2	$550 per term	Yes	January 11, 1904
Kansas	Biennial	50 days	4	2	$3 per day	Yes	January 10, 1905
Kentucky	Biennial	60 days	4	2	$5 per day	Yes	January 5, 1904
Louisiana	Biennial	60 days	4	4	$5 per day	Yes	May —, 1904
Maine	Biennial	No limit	2	2	$150 per year	Yes	January 4, 1905
Maryland	Biennial	90 days	4	2	$5 per day	No	January 6, 1904
Massachusetts	Annual	No limit	1	1	$750 per year	Yes	January 6, 1904
Michigan	Biennial	No limit	2	2	$3 per day	Yes	January 4, 1905
Minnesota	Biennial	90 days	4	2	$5 per day	Yes	January 3, 1905
Mississippi	Biennial	No limit	4	4	$400 per year	Yes	January 7, 1904
Missouri	Biennial	70 days	4	2	$5 per day	Yes	January 4, 1905
Montana	Biennial	60 days	4	2	$6 per day	Yes	January —, 1905
Nebraska	Biennial	60 days	2	2	$5 per day	Yes	January 3, 1905
Nevada	Biennial	50 days	4	2	$8 per day	Yes	January 9, 1905
New Hampshire	Biennial	No limit	2	2	$200 per year	Yes	January 4, 1905
New Jersey	Annual	No limit	3	1	$500 per year	No	January 12, 1904
New Mexico	Biennial	60 days	2	2	$4 per day	Yes	January 17, 1905
New York	Annual	No limit	2	1	$1,500 per year	Yes	January 6, 1904
North Carolina	Biennial	60 days	2	2	$4 per day	Yes	January 4, 1905
North Dakota	Biennial	60 days	4	2	$5 per day	Yes	January 3, 1905
Ohio	Biennial	No limit	2	2	$600 per year	Yes	January 4, 1904
Oklahoma	Biennial	60 days	2	2	$4 per day	Yes	January 10, 1905
Oregon	Biennial	40 days	4	2	$3 per day	Yes	January 9, 1905
Pennsylvania	Biennial	No limit	4	2	$1,500 per session	Yes	January 3, 1905
Porto Rico	Biennial	60 days	1	1	$5 per day	Yes	January 1, 1904
Rhode Island	Annual	60 days	1	1	$5 per day	Yes	January 5, 1904
South Carolina	Annual	40 days	4	2	$4 per day	Yes	January 12, 1904
South Dakota	Biennial	60 days	2	2	$5 per day	Yes	January 3, 1905
Tennessee	Biennial	75 days	2	2	$4 per day	Yes	January 2, 1905
Texas	Biennial	No limit	4	2	$5 per day	Yes	January 2, 1905
Utah	Biennial	60 days	4	2	$4 per day	No	January 9, 1905
Vermont	Biennial	No limit	2	2	$3 per day	Yes	October —, 1904
Virginia	Biennial	90 days	4	2	$4 per day	Yes	January 13, 1904
Washington	Biennial	60 days	2	2	$5 per day	Yes	January 12, 1905
West Virginia	Biennial	45 days	4	2	$4 per day	Yes	January 11, 1905
Wisconsin	Biennial	No limit	4	2	$500 per year	Yes	January 11, 1905
Wyoming	Biennial	40 days	4	2	$5 per day	Yes	January 10, 1905

HOUSE OF REPRESENTATIVES—FIFTY-SEVENTH CONGRESS.

Names of Members, Politics, Home Post-Offices, Districts, Dates and Places of Birth, Business or Professions, Congressional Service.

ORGANIZATION.—David B. Henderson, speaker; Alexander McDowell, clerk; Henry Casson, sergeant-at-arms; William J. Glenn, doorkeeper; Joseph C. McElroy, postmaster; Rev. Henry Noble Conden, chaplain.

NAMES.	State and Home Post-Office.	Politics.	Cong. Dist.	When Born.	Place of Birth.	Occupation.	Congresses Elected to.
Acheson, Ernest F.	Washington, Pa.	R.	24	Sept. 10, 1855	Washington, Pa.	Lawyer	54, 55, 56, 57.
Adams, Robert, Jr.	Philadelphia, Pa.	R.	2	Feb. 26, 1849	Philadelphia, Pa.	Lawyer	53, 54, 55, 56, 57.
Adamson, Wm. C.	Carrollton, Ga.	D.	4	Aug. 13, 1850	Bowdon, Ga	Lawyer	55, 56, 57.
Alexander, De Alva S.	Buffalo, N. Y.	R.	33	July 17, 1846	Richmond, Me.	Lawyer	55, 56, 57.
Allen, Amos L.	Alfred, Me.	R.	1	Mar. 17, 1837	Waterboro, Me.	Lawyer	56, 57.
Allen, Henry D.	Morganfield, Ky.	D.	2	June 24, 1854	Henderson, Co., Ky.	Lawyer	56, 57.
Aplin, Henry H.	West Bay City, Mich.	R.	10	April 15, 1841	Genessee Co., Mich.	Merchant	57.
Babcock, Joseph W.	Necedah, Wis.	R.	3	Mar. 6, 1850	Swanton, Vt.	Lumberman	53, 54, 55, 56, 57.
Ball, L. Heister	Faulkland, Del.	R.	At large	Sept. 21, 1861	Near Wilmington, Del.	Gentleman	57.
Ball, Thomas H.	Huntsville, Tex.	D.	1	Jan. 14, 1859	Huntsville, Tex.	Lawyer	55, 56, 57.
Bankhead, John H.	Fayette, Ala.	D.	6	Sept. 13, 1842	Moscow, Ala.	Farmer	50, 51, 52, 53, 54, 55, 56, 57.
Barney, Samuel S.	West Bend, Wis.	R.	5	Jan. 31, 1846	Hartford, Wis.	Lawyer	54, 55, 56, 57.
Bartholdt, Richard	St. Louis, Mo.	R.	10	Nov. 2, 1855	Germany	Editor	53, 54, 55, 56, 57.
Bartlett, Charles L.	Macon, Ga.	D.	6	Jan. 31, 1853	Monticello, Ga.	Lawyer	54, 55, 56, 57.
Bates, Arthur L.	Meadville, Pa.	R.	26	June 6, 1859	Meadville, Pa.	Lawyer	57.
Beidler, Jacob A.	Cleveland, O.	R.	20	Nov. 2, 1852	Chester Co., Pa.	Coal Merchant	57.
Bell, John C.	Montrose, Colo.	D.	2	Dec. 11, 1851	Grundy Co., Tenn.	Lawyer	53, 54, 55, 56, 57.
Bellamy, John D.	Wilmington, N. C.	D.	6	Mar. 24, 1854	Wilmington, N. C.	Lawyer	56, 57.
Belmont, Oliver H. P.	New York, N. Y.	D.	13	Nov. 12, 1858	New York City	Capitalist	57.
Benton, Mæcenas E.	Neosho, Mo.	D.	15	Jan. 29, 1849	Obion Co., Tenn.	Lawyer	55, 56, 57.
Bingham, Henry H.	Philadelphia, Pa.	R.	1	Dec. 4, 1841	Philadelphia, Pa.	Lawyer	46 to 57 consecutively.
Bishop, Roswell P.	Ludington, Mich.	R.	9	Jan. 6, 1843	Sidney, N. Y.	Lawyer	54, 55, 56, 57.
Blackburn, Spencer	Wilkesboro, N. C.	R.	8	Sept. 22, 1868	Watauga Co., N. C.	Lawyer	57.
Blakeney, Albert A.	Franklinville, Md.	R.	2	Sept. 28, 1850	Sherwood, Md.	Manufacturer	57.
Boreing, Vincent	London, Ky.	R.	11	Nov. 24, 1839	Washington Co., Tenn.	Banker	56, 57.
Boutell, Henry S.	Chicago, Ill.	R.	6	Mar. 14, 1856	Boston, Mass.	Lawyer	55, 56, 57.
Bowersock, Justin D.	Lawrence, Kan.	R.	2	Sept. 19, 1842	Columbiana Co., O.	Banker	56, 57.
Bowie, Sidney J.	Anniston, Ala.	D.	4	July 26, 1865	Talladega, Ala.	Lawyer	57.
Brantley, William G.	Brunswick, Ga.	D.	11	Sept. 18, 1860	Blackshear, Ga.	Lawyer	55, 56, 57.
Breazeale, Phanor	Natchitoches, La.	D.	4	Dec. 29, 1858	Natchitoches Parish, La.	Lawyer	56, 57.
Brick, Abraham L.	South Bend, Ind.	R.	13	May 27, 1860	St. Joseph Co., Ind.	Lawyer	56, 57.
Bristow, Henry	Brooklyn, N. Y.	R.	3	June 5, 1840	Azore Islands	Merchant	57.
Bromwell, Jacob H.	Cincinnati, Ohio	R.	2	May 11, 1847	Cincinnati, O.	Lawyer	53, 54, 55, 56, 57.
Broussard, Robert F.	New Iberia, La.	D.	3	Aug. 17, 1864	Iberia Parish, La.	Lawyer	55, 56, 57.
Brown, Webster E.	Rhinelander, Wis.	R.	9	July 16, 1851	Madison Co., N. Y.	Lumberman	57.
Brownlow, Walter P.	Jonesboro, Tenn.	R.	1	....	Abingdon. Va.	Editor	55, 56, 57.
Brundidge, Stephen, Jr.	Searcy, Ark.	D.	6	Jan. 1, 1857	White Co., Ark.	Lawyer	55, 56, 57.
Bull, Melville	Middletown, R. I.	R.	1	1854	Newport, R. I.	Farmer	54, 55, 56, 57.
Burgess, George F.	Gonzales, Tex.	D.	10	Sept. 21, 1861	Wharton Co., Tex.	Lawyer	57.
Burk, Henry	Philadelphia, Pa.	R.	3	Sept. 26, 1850	Germany	Manufacturer	57.
Burke, Charles H.	Pierre, S. Dak.	R.	At large	April 1, 1861	Genessee Co., N. Y.	Real Estate	56, 57.
Burkett, Elmer J.	Lincoln, Neb.	R.	1	Dec. 1, 1867	Mills Co., Iowa	Lawyer	56, 57.
Burleigh, Edwin C.	Augusta, Me.	R.	3	Nov. 27, 1843	Linneus, Me.	Publisher	55, 56, 57.
Burleson, Albert S.	Austin, Tex.	D.	9	June 7, 1863	San Marcos, Tex.	Lawyer	56, 57.
Burnett, John L.	Gadsden, Ala.	D.	7	Jan. 20, 1854	Cedar Bluff, Ala.	Lawyer	56, 57.
Burton, Theodore E.	Cleveland, Ohio	R.	21	Dec. 20, 1851	Jefferson, O.	Lawyer	51, 54, 55, 56, 57.
Butler, James J.	St. Louis, Mo.	D.	12	Aug. 29, 1862	St. Louis, Mo.	Lawyer	57.
Butler, Thomas S.	West Chester, Pa.	R.	6	Nov. 4, 1855	Chester Co., Pa.	Lawyer	55, 56, 57.
Calderhead, William	Marysville, Kan.	R.	5	Sept. 26, 1844	Perry Co., O.	Lawyer	54, 56, 57.
Caldwell, Benj.	Chatham, Ill.	D.	17	Aug. 2, 1848	Greene Co., Ill.	Banker	56, 57.

Candler, Ezekiel S., Jr.	Corinth, Miss.	D.	1	Jan. 8, 1862	Bellville, Fla.	Lawyer	57.
Cannon, Joseph G.	Danville, Ill.	R.	12	May 7, 1836	Guilford, N. C.	Lawyer	43 to 57, except 52.
Capron, Adin B.	Smithfield, R. I.	R.	2	Jan. 9, 1841	Mendon, Mass.	Merchant	55, 56, 57.
Cassel, H. Burd	Marietta, Pa.	R.	10	Oct. 15, 1855	Marietta, Pa.	Lumberman	57.
Cassingham, John W.	Coshocton, Ohio	D.	17	June 22, 1840	Coshocton, O.	Manufacturer	57.
Clark, Champ	Bowling Green, Mo.	D.	9	Mar. 7, 1850	Anderson Co., Ky.	Lawyer	53, 55, 56, 57.
Clayton, Henry D.	Eufaula, Ala.	D.	3	Feb. 10, 1857	Barbour Co., Ala.	Lawyer	55, 56, 57.
Cochran, Charles F.	St. Joseph, Mo.	D.	4	Sept. 27, 1848	Kirkville, Mo.	Editor	55, 56, 57.
Connell, William	Scranton, Pa.	R.	11	Sept. 10, 1827	Cape Breton, N. S.	Coal Miner	55, 56, 57.
Conner, James P.	Denison, Iowa	R.	10	Jan. 27, 1851	Delaware Co., Ind.	Lawyer	56, 57.
Conry, Joseph A.	Boston, Mass.	D.	9	Sept. 12, 1868	Boston, Mass.	Gentleman	57.
Coombs, Frank L.	Napa, Cal.	R.	1	Dec. 26, 1853	Napa, Cal.	Lawyer	57.
Cooney, James	Marshall, Mo.	D.	7	1848	Ireland	Lawyer	55, 56, 57.
Cooper, Henry A.	Racine, Wis.	R.	1		Walworth Co., Wis.	Lawyer	53, 54, 55, 56, 57.
Cooper, Sam B.	Beaumont, Tex.	D.	2	May 30, 1850	Caldwell Co., Ky.	Lawyer	53, 54, 55, 56, 57.
Corliss, John B.	Detroit, Mich.	R.	1	1851	Richford, Vt.	Lawyer	54, 55, 56, 57.
Cousins, Robert G.	Tipton, Iowa	R.	5	1859	Cedar Co., Iowa	Lawyer	53, 54, 55, 56, 57.
Cowherd, William S.	Kansas City, Mo.	D.	5	Sept. 1, 1860	Jackson Co., Mo.	Lawyer	55, 56, 57.
Creamer, Thomas J.	New York City	D.	8	May, 1843	Ireland	Politician	57.
Cromer, George W.	Muncie, Ind.	R.	8	May 13, 1856	Madison Co., Ind.	Lawyer	56, 57.
Crowley, Joseph B.	Robinson, Ill.	D.	19	July 19, 1858	Coshocton, O.	Lawyer	56, 57.
Crumpacker, Edgar D.	Valparaiso, Ind.	R	10	May 27, 1851	Laporte Co., Ind.	Lawyer	55, 56, 57.
Cummings, Amos J.	New York City	D.	10	May 15, 1841	Conkling, N. Y.	Editor	50 to 57.
Currier, Frank D.	Canaan, N. H.	R.	2	Oct. 30, 1853	Canaan N. H.	Lawyer	57.
Curtis, Charles	Topeka, Kans.	R.	1	Jan. 25, 1860	Shawnee Co., Kans.	Lawyer	53, 54, 55, 56, 57.
Cushman, Francis W.	Tacoma, Wash.	R.	At large	May 8, 1867	Washington Co., Iowa	Lawyer	56, 57.
Dahle, Herman B.	Mt. Horeb, Wis.	R.	2	Mar. 30, 1855	Dane Co., Wis.	Merchant	56, 57.
Dalzell, John	Pittsburg, Pa.	R.	22	April 19, 1845	Pittsburg, Pa.	Lawyer	50 to 57.
Darragh, Archibald B.	St. Louis, Mich.	R.	11	Dec. 23, 1840	Monroe Co., Mich.	Banker	57.
Davey, Robert C.	New Orleans, La.	D.	2	Oct. 22, 1853	New Orleans, La.	Merchant	53, 55, 56, 57.
Davidson, James H.	Oshkosh, Wis	R.	6	June 18, 1858	Delaware Co., N. Y.	Lawyer	55, 56, 57.
Davis, Robert W.	Palatka, Fla.	D.	2	Mar. 15, 1849	Lee Co., Ga.	Lawyer	55, 56, 57.
Dayton, Alston G.	Philippi, W. Va.	R.	2	Oct. 18, 1857	Philippi, W. Va.	Lawyer	54, 55, 56, 57.
De Armond, David A.	Butler, Mo.	D.	6	Mar. 18, 1844	Blair Co., Pa.	Lawyer	52 to 57.
De Graffenreid, Reese C.	Longview, Tex.	D.	3	1859	Franklin, Tenn.	Lawyer	55, 56, 57.
Deemer, Elias	Williamsport, Pa.	R.	16	Jan. 3, 1838	Bucks Co., Pa.	Manufacturer	57.
Dick, Charles	Akron, Ohio	R.	19	Nov. 3, 1858	Akron, O.	Lawyer	55, 56, 57.
Dinsmore, Hugh H.	Fayetteville, Ark.	D.	5	Dec. 24, 1850	Benton Co., Ark.	Lawyer	53, 54, 55, 56, 57.
Dougherty, John	Liberty, Mo.	D.	3	Feb. 25, 1857	Platte Co., Mo.	Lawyer	56, 57.
Douglas, William H.	New York City	R.	14	Dec. 5, 1853	New York City	Merchant	57.
Dovener, Blackburn B.	Wheeling, W. Va.	R.	1	April 20, 1842	Cabell Co., W. Va.	Lawyer	54, 55, 56, 57.
Draper, William H.	Lansingburg, N. Y.	R.	19	June 24, 1841	Worcester Co., Mass.	Merchant	57.
Driscoll, Michael E.	Syracuse, N. Y.	R.	27	Feb. 9, 1851	Syracuse, N. Y.	Lawyer	56, 57.
Eddy, Frank M.	Glenwood Minn.	R.	7	April 1, 1856	Pleasant Grove, Minn.	Reporter	54, 55, 56, 57.
Edwards, Caldwell	Bozeman, Mont.	Pop.	At large	Jan. 8, 1841	Sag Harbor, N. Y.	Farmer	57.
Elliot, William	Beaufort, S. C.	D.	1	Sept. 3, 1838	Beaufort, S. C.	Lawyer	50 to 57, except 53.
Emerson, Louis W.	Warrensburg, N. Y.	R.	23	July 25, 1857	Warrensburg, N. Y.	Banker	56, 57.
Esch, John J.	La Crosse, Wis.	R.	7	Mar. 20, 1861	Monroe Co., Wis.	Lawyer	56, 57.
Evans, Alvin	Ebensburg, Pa.	R.	20	Oct. 4, 1845	Ebensburg, Pa.	Lawyer	57.
Feely, John J.	Chicago, Ill.	D.	2	Aug. 1, 1875	Will Co., Ill.	Lawyer	57.
Finley, David E.	Yorkville, S. C.	D.	5	Feb. 28, 1861	Yorkville, S. C.	Lawyer	56, 57.
Fitzgerald, John J.	Brooklyn, N. Y.	D.	2	Mar. 20, 1872	Brooklyn, N. Y.	Lawyer	56, 57.
Fleming, William H.	Augusta, Ga.	D.	10	Oct. 18, 1856	Augusta, Ga.	Lawyer	55, 56, 57.
Fletcher, Loren	Minneapolis Minn.	R.	5	April 10, 1833	Mount Vernon, Me.	Merchant	53, 54, 55, 56, 57.
Flood, Henry D.	West Appomattox, Va.	D.	10	Sept. 2, 1865	Appomattox Co., Va.	Lawyer	57.
Foerderer, Robert H.	Philadelphia, Pa.	R.	At large	May 16, 1860	Germany	Manufacturer	57.
Fordney, Joseph W.	Saginaw, Mich.	R.	8	Nov. 5, 1853	Blackford Co., Ind.	Lumberman	56, 57.
Foss, George Edmund	Chicago, Ill	R.	7	July 2, 1863	Berkshire, Vt.	Lawyer	54, 55, 56, 57.
Foster, David, J.	Burlington, Vt.	R.	1	June 27, 1857	Barnet, Vt.	Lawyer	57.
Foster, George P.	Chicago, Ill.	D.	3	April 3, 1860	Dover, N. J.	Lawyer	56, 57.
Fowler, Charles N.	Elizabeth, N. J.	R.	8	Nov. 2, 1852	Lena, Ill.	Lawyer	54, 55, 56, 57.
Fox, Andrew F.	Westport, Miss.	D.	4	April 26, 1849	Pickens Co., Ala.	Lawyer	55, 56, 57.
Gaines, Joseph H.	Charleston, W. Va.	R.	3	Sept. 3, 1864	District of Columbia	Lawyer	57.

HOUSE OF REPRESENTATIVES—FIFTY-SEVENTH CONGRESS—(Continued).

NAMES.	State and Home Post-Office.	Politics.	Cong. Dist.	When Born.	Place of Birth.	Occupation.	Congresses Elected to.
Gaines, John W.	Nashville, Tenn.	D.	6	Aug. 24, 1861	Nashville, Tenn.	Lawyer	55, 56, 57.
Gardner, John J.	Atlantic City, N. J.	R.	2	1845	Atlantic Co., N. J.	Farmer	53, 54, 55, 56, 57.
Gardner, Washington	Albion, Mich.	R.	3	Feb. 16, 1845	Morrow Co., O.	Professor	56, 57.
Gibson, Henry R.	Knoxville, Tenn.	R.	2	1837	Queen Anne Co., Md.	Lawyer	54, 55, 56, 57.
Gilbert, George G.	Shelbyville, Ky.	D.	8	1850	Spencer Co., Ky.	Lawyer	56, 57.
Gill, Joseph J.	Steubenville, Ohio	R.	16	Sept. 21, 1846	Belmont Co., O.	Manufacturer	56, 57.
Gillet, Charles W.	Addison, N. Y.	R.	29	Nov. 26, 1840	Addison, N. Y.	Gentleman	53, 54, 55, 56, 57.
Gillett, Frederick H.	Springfield, Mass.	R.	2	Oct. 16, 1851	Westfield, Mass.	Lawyer	53, 54, 55, 56, 57.
Glenn, Thomas L.	Montpelier, Idaho	Pop.	At large	Feb. 2, 1847	Ballard Co., Ky.	Lawyer	57.
Goldfogle, Henry M.	New York City	D.	9	May 23, 1856	New York City	Lawyer	57.
Gooch, D. Linn	Covington, Ky.	D.	6	1853	McLean Co., Ky	Druggist	57.
Gordon, Robert B.	St. Mary's, Ohio	D.	4	Aug. 6, 1855	Auglaize Co., O.	Miller	56, 57.
Graff, Joseph B.	Pekin, Ill.	R.	14	July 1, 1854	Terre Haute, Ind.	Lawyer	54, 55, 56. 57.
Graham, William H.	Allegheny, Pa.	R.	23	Aug. 3, 1844	Allegheny, Pa.	Banker	55, 56, 57.
Green, Henry D.	Reading, Pa.	D.	9	May 3, 1857	Reading, Pa.	Lawyer	56, 57.
Greene, William S.	Fall River, Mass.	R.	13	April 28, 1841	Tremont, Ill.	Real Estate	55, 56, 57.
Griffith, Francis M.	Vevay, Ind.	D.	4	Aug. 21, 1849	Switzerland Co., Ind.	Lawyer	55, 56, 57.
Griggs, James M.	Dawson, Ga.	D.	2	Mar. 29, 1861	La Grange, Ga.	Lawyer	55, 56, 57.
Grosvenor, Charles H.	Athens, Ohio	R.	11	Sept. 20, 1833	Windham Co., Conn.	Lawyer	49 to 57, except 52.
Grow, Galusha A.	Glenwood, Pa.	R.	At large	Aug. 31, 1823	Windham Co., Conn.	Lawyer	Six terms from 1851; 53 to 57.
Hall, James K. P.	Ridgway, Pa.	D.	28	Sept. 30, 1844	Milesburg, Pa.	Banker	56, 57.
Hamilton, Edward L.	Niles. Mich	R.	4	Dec. 9, 1857	Berrien Co., Mich.	Lawyer	55, 56, 57.
Hanbury, Harry A.	Brooklyn, N. Y.	R.	4	Jan. 1, 1863	Bristol, England	Ironmaster	57.
Haskins, Kittredge	Brattleboro, Vt.	R.	2	April 8, 1836	Dover, Vt.	Lawyer	57.
Haugen, Gilbert N.	Northwood, Iowa	R.	4	April 21. 1859	Rock Co., Wis.	Importer	56, 57.
Hay, James	Madison, Va.	D.	7	Jan. 9, 1856	Clarke Co., Va	Lawyer	56, 57.
Heatwole, Joel P.	Northfield, Minn.	R.	3	Aug. 22, 1856	Indiana	Printer	54, 55, 56, 57.
Hedge, Thomas	Burlington, Iowa	R.	1	June 24, 1844	Burlington, Iowa	Lawyer	56, 57.
Hemenway, James A.	Boonville, Ind.	R.	1	Mar. 8, 1860	Boonville, Ind.	Lawyer	54, 55, 56, 57.
Henderson, David B.	Dubuque, Iowa	R.	3	Mar. 14, 1840	Scotland	Lawyer	48 to 57 consecutively.
Henry, E. Stevens	Rockville, Conn.	R.	1	1836	Gill, Mass.	Farmer	54, 55, 56, 57.
Henry, Patrick	Vicksburg, Miss.	D.	3	Feb. 15, 1861	Arkansas	Lawyer	57.
Henry, Robert L.	Waco, Tex.	D.	7	May 12, 1864	Cass Co., Tex.	Lawyer	55, 56, 57.
Hepburn, William P.	Clarinda, Iowa	R.	8	Nov. 4, 1833	Wellsville, O.	Lawyer	47, 48, 49, 53, 54, 55, 56, 57.
Hildebrant, Charles Q.	Wilmington, Ohio	R.	6	Oct. 17, 1864	Wilmington, O.	Clerk	57.
Hill, Ebenezer J.	Norwalk, Conn.	R.	4	Aug. 4, 1845	Redding, Conn.	Banker	54, 55, 56, 57.
Hitt, Robert R.	Mt. Morris, Ill.	R.	9	Jan. 16, 1834	Urbana, O.	Diplomat	47 to 57 consecutively.
Holliday, Elias S.	Brazil, Ind.	R.	5	Mar. 5, 1842	Aurora, Ind.	Lawyer	57.
Hooker, Charles E.	Jackson, Miss.	D.	7	1825	Union District, S. C.	Lawyer	44 to 47, 50 to 53, 57.
Hopkins, Albert J.	Aurora, Ill.	R.	8	Aug. 15, 1846	DeKalb Co., Ill.	Lawyer	49 to 57 consecutively.
Howard, William M.	Lexington, Ga.	D.	8	Dec. 6, 1857	Berwick City, La.	Lawyer	55, 56, 57.
Howell, Benj. F.	New Brunswick, N. J.	R.	3	Jan. 1844	Cumberland Co., N. J.	Banker	54, 55, 56, 57.
Hughes, James A.	Huntington, W. Va.	R.	4	Feb. 27, 1861	Corunna, Ont.	Business	57.
Hull, John A. T.	Des Moines, Iowa	R.	7	May 1, 1841	Clinton Co., O.	Banker	52, 53, 54, 55, 56, 57.
Irwin, Harvey S.	Louisville, Ky.	R.	5	Dec. 10, 1844	Highland Co., O.	Lawyer	57.
Jack, Summers M.	Indiana, Pa.	R.	21	July 18, 1852	Jefferson Co., Pa.	Lawyer	56, 57.
Jackson, Alfred M.	Winfield, Kans.	D.	3	July 14, 1860	Muhlenberg Co., Ky.	Lawyer	57.
Jackson, William H.	Salisbury, Md.	R.	1	1839	Near Salisbury, Md.	Lumberman	57.
Jenkins, John J.	Chippewa Falls, Wis.	R.	10	Aug. 20, 1843	Weymouth, England	Lawyer	54, 55, 56, 57.
Jett, Thomas M.	Hillsboro, Ill.	D.	18	May 1, 1862	Bond Co., Ill.	Lawyer	55, 56, 57.
Johnson, Joseph T.	Spartansburg, S. C.	D.	4	Feb. 28, 1858	Laurens Co., S. C.	Lawyer	57.
Jones, Wesley L.	Yakima, Wash.	R.	At large	Oct. 9, 1863	Bethany, Ill.	Lawyer	56, 57.
Jones, William A.	Warsaw, Va.	D.	1	Mar. 21, 1849	Warsaw, Va.	Lawyer	52, 53, 54, 55, 56, 57.
Joy, Charles F.	St. Louis, Mo.	R.	11	Dec. 11, 1849	Morgan Co., Ill.	Lawyer	53, 54, 55, 56, 57.
Kahn, Julius	San Francisco, Cal.	R.	4	Feb. 28, 1861	Germany	Lawyer	56, 57.

Kehoe, James N.	Maysville, Ky.	D.	9	July 15, 1862	Maysville, Ky.	Lawyer	57.
Kern, Frederick J	Belleville, Ill	D.	21	Sept. 2, 1864	Millstadt, Ill.	Editor	57.
Ketcham, John H.	Dover Plains, N. Y.	R.	18	Dec. 21, 1832	Dover, N. Y.	Farmer	39 to 42, 45 to 52, 56 to 57.
Kitchin, Claude	Scotland Neck, N C.	D.	2	Mar. 24, 1869	Halifax Co., N. C	Lawyer	57.
Kitchin, William W.	Roxboro, N. C.	D.	5	Oct. 9, 1866	Halifax Co., N. C	Lawyer	55, 56, 57.
Kleberg, Rudolph	Cuero, Tex.	D.	11	June 26, 1847	Austin Co., Tex.	Lawyer	55, 56, 57.
Klutts, Theo. F.	Salisbury, N. C.	D.	7	Oct. 4, 1848	Salisbury, N. C.	Lawyer	56, 57.
Knapp, Charles L.	Lowville, N. Y.	R.	24	July 4, 1847	Lewis Co., N. Y.	Lawyer	57.
Knox, William S.	Lawrence, Mass.	R.	5	Sept. 10, 1843	Killingly, Conn.	Lawyer	54, 55, 56.
Kyle, Thomas B.	Troy, Ohio	R.	7	Mar. 10, 1856	Troy, O	Lawyer	57.
Lacey, John F.	Oskaloosa, Iowa	R.	6	May 30, 1841	New Martinsdale, Va.	Lawyer	51, 53 to 57.
Lamb, John	Richmond, Va.	D.	3	June 12, 1840	Sussex Co., Va.	Farmer	55, 56, 57.
Landis, Charles B.	Delphi, Ind.	R.	9	July 9, 1858	Butler Co., O.	Editor	55, 56, 57.
Lanham, Samuel W. T.	Weatherford, Tex.	D.	8	July 4, 1846	Spartanburg District, S. C.	Lawyer	48 to 52, 55 to 57.
Lassiter, Francis R.	Petersburg, Va.	D.	4	Feb. 18, 1866	Petersburg, Va.	Lawyer	56, 57.
Latimer, Asbury C.	Belton, S. C.	D.	3	July 31, 1851	Abbeville Co., S. C.	Farmer	53, 54, 55, 56, 57.
Lawrence, George P.	North Adams, Mass.	R.	1	May 19, 1859	Adams, Mass.	Lawyer	55, 56, 57.
Lessler, Montague	New York City	R.	7	1869	New York City	Lawyer	57.
Lester, Rufus E.	Savannah, Ga.	D.	1	Dec. 12, 1837	Burke Co., Ga.	Lawyer	51 to 57 consecutively.
Lever, Asbury F.	Lexington, S. C.	D.	7	Jan. 5, 1875	Lexington Co., S. C.	Lawyer	57.
Lewis, Elijah B.	Montezuma, Ga.	D.	3	Mar. 27, 1854	Dooly Co., Ga.	Banker	55, 56, 57.
Lewis, Robert J.	York, Pa.	R.	19	Dec. 30, 1864	York Co., Pa.	Lawyer	57.
Lindsay, George H.	Brooklyn, N. Y.	D.	6	1843	New York City	Commissioner	57.
Littauer, Lucien N.	Gloversville, N. Y.	R.	22	Jan. 20, 1859	Gloversville, N. Y.	Manufacturer	55, 56, 57.
Little, John S	Greenwood, Ark.	D.	2	Mar. 15, 1853	Sebastian Co., Ark.	Lawyer	53, 54, 55, 56.
Littlefield, Charles E.	Rockland, Me.	R.	2	June 21, 1851	Lebanon, Me.	Lawyer	56, 57.
Livingston, Leonidas F.	Kings, Ga.	D.	5	April 3, 1832	Newton Co., Ga.	Farmer	52 to 57 consecutively.
Lloyd, James T.	Shelbyville, Mo.	D.	1	Aug. 28, 1857	Canton, Mo.	Lawyer	55, 56, 57.
Long, Chester I.	Medicine Lodge, Kans.	R.	7	Oct. 12, 1860	Perry Co., Pa.	Lawyer	54, 56, 57.
Loud, Eugene F.	San Francisco, Cal.	R.	5	Mar. 12, 1847	Abington, Mass.	Lawyer	52 to 57 consecutively.
Loudenslager, Henry C.	Paulsboro, N. J.	R.	1	May 22, 1852	Cumberland Co., N. J.	Produce	53, 54, 55, 56, 57.
Lovering, William C.	Taunton, Mass.	R.	12	1837	Rhode Island	Manufacturer	55, 56, 57.
McAndrews, James	Chicago, Ill.	D.	4	Oct. 22, 1862	Woonsocket, R. I.	Gentleman	57.
McCall, Samuel W.	Winchester, Mass.	R.	8	Feb. 28, 1851	East Providence, Pa.	Lawyer	53, 54, 55, 56, 57.
McCleary, James T.	Mankato, Minn.	R.	1	Feb. 5, 1853	Ingersoll, Ont.	Professor	53, 54, 55, 56, 57.
McClellan, George B.	New York City	D.	12	Nov. 25, 1865	Saxony	Lawyer	54, 55, 56, 57.
McCulloch, Philip D.	Marianna, Ark.	D.	1	June 23, 1851	Murfreesboro, Tenn.	Lawyer	53, 54, 55, 56, 57.
McDermott, Allan L.	Jersey City, N. J.	D.	7	Mar. 30, 1854	South Boston, Mass.	Lawyer	56, 57.
McLachlan, James	Pasadena, Cal.	R.	6	Aug., 1852	Scotland	Lawyer	54, 57.
McLain, Frank A.	Gloster, Miss.	D.	6	Jan. 29, 1853	Amite Co., Miss.	Lawyer	55, 56, 57.
McRae, Thomas C.	Prescott, Ark.	D.	3	Dec. 21, 1851	Union Co., Ark.	Lawyer	49 to 57 consecutively.
Maddox, John W.	Rome, Ga.	D.	7	June 3, 1848	Chattanooga Co., Ga.	Lawyer	53, 54, 56, 57.
Mahon, Thaddeus M.	Chambersburg, Pa.	R.	18	1840	Franklin Co., Pa.	Lawyer	53, 54, 55, 56, 57.
Mahoney, William F.	Chicago, Ill.	D.	5	Feb. 22, 1836	Chicago, Ill.	Merchant	57.
Mann, James R.	Chicago, Ill.	R.	1	Oct. 20, 1856	Bloomington, Ill.	Lawyer	55, 56, 57.
Marshall, Thomas F.	Oakes, N. Dak.	R.	At large	Mar. 7, 1854	Hannibal, Mo.	Banker	57.
Martin, Eben W.	Deadwood, S. Dak.	R.	At large	April 12, 1855	Jackson Co., Iowa	Lawyer	57.
Maynard, Harry L.	Portsmouth, Va.	D.	2	June 8, 1861	Portsmouth, Va.	Gentleman	57.
Mercer, David H.	Omaha, Neb.	R.	2	June 9, 1857	Benton Co., Iowa	Lawyer	53, 54, 55, 56, 57.
Metcalf, Victor H.	Oakland, Cal.	R.	3	Oct. 10, 1853	Utica, N. Y.	Lawyer	56, 57.
Meyer, Adolph	New Orleans, La.	D.	1	Oct. 19, 1842		Planter	52 to 57 consecutively.
Mickey, J. Ross	Macomb, Ill.	D.	15	Jan. 15, 1856	McDonough Co., Ill.	Lawyer	57.
Miers, Robert W.	Bloomington, Ind.	D.	2	Jan. 27, 1848	Decatur Co., Ind.	Lawyer	55, 56, 57.
Miller, James M.	Council Grove, Kans.	R.	4		Huntingdon Co., Pa.	Lawyer	56, 57.
Minor, Edward S.	Sturgeon Bay, Wis.	R.	8	1840	Jefferson Co., N. Y.	Merchant	54, 55, 56, 57.
Mondell, Frank W.	Newcastle, Wyo.	R.	At large	Nov. 6, 1860	St. Louis, Mo.	Coal and Oil	54, 56, 57.
Moody, James M.	Waynesville, N. C.	R.	9	Feb. 12, 1858	Graham Co., N. C.	Lawyer	57.
Moody, Malcolm A.	Dallas, Ore.	R.	2	Nov. 30, 1854	Linn Co., Ore.	Banker	56, 57.
Moody, William H.	Haverhill, Mass.	R.	6	Dec. 23, 1853	Newbury, Mass.	Lawyer	54, 55, 56, 57.
Moon, John A.	Chattanooga, Tenn.	D.	3	April 22, 1855	Albemarle Co., Va.	Lawyer	55, 56, 57.
Morgan, Stephen	Oak Hill, Ohio	R.	10	Jan. 25, 1854	Jackson Co., O.	Teacher	56, 57.
Morrell, Edward deV.	Philadelphia, Pa.	R.	5	Aug. 7, 1862	Newport, R. I.	Lawyer	56, 57.
Morris, Page	Duluth, Minn.	R.	6	June 30, 1853	Lynchburg, Va.	Lawyer	55, 56, 57.

HOUSE OF REPRESENTATIVES—FIFTY-SEVENTH CONGRESS—(Continued).

NAMES.	State and Home Post-Office.	Politics.	Cong. Dist.	When Born.	Place of Birth.	Occupation.	Congresses Elected to.
Mudd, Sidney E.	Laplata, Md.	R.	5	Feb. 12, 1858	Charles Co., Md.	Lawyer	51, 55, 56, 57.
Mutchler, Howard,	Easton, Pa.	D.	8	Feb. 12, 1859	Easton, Pa.	Editor	53, 57.
Naphen, Henry F.	Boston, Mass.	D.	10	Aug. 14, 1847	Ireland	Lawyer	56, 57.
Needham, James C.	Modesto, Cal.	R.	7	Sept. 17, 1864	Carson City, Nev.	Lawyer	56, 57.
Neville, William	North Platte, Neb.	Pop.	6	Dec. 29, 1843	Washington Co., Ill.	Lawyer	56, 57.
Nevin, Robert M.	Dayton, Ohio	R.	3	May 5, 1850	Highland Co., O.	Lawyer	57.
Newlands, Francis G.	Reno, Nev.	D.	At large	Aug. 28, 1848	Natchez, Tenn.	Lawyer	53, 54, 55, 56, 57.
Norton, James A.	Tiffin, Ohio	D.	13	Nov. 11, 1843	Seneca Co., O.	Lawyer	55, 56, 57.
Olmsted, Marlin E.	Harrisburg, Pa.	R.	14	....	Potter Co., Pa.	Lawyer	55, 56, 57.
Otey, Peter J.	Lynchburg, Va.	D.	6	Dec. 22. 1840	Lynchburg, Va.	Banker	54, 55, 56, 57.
Otjen, Theobold	Milwaukee, Wis.	R.	4	Oct. 17, 1851	St. Clair Co., Mich.	Lawyer	54, 55, 56. 57.
Overstreet, Jesse	Indianapolis, Ind.	R.	7	Dec. 14, 1859	Johnson Co., Ind.	Lawyer	54, 55, 56, 57.
Padgett, Lemuel P.	Columbia, Tenn.	D.	7	Nov. 28, 1855	Columbia, Tenn.	Lawyer	57.
Palmer, Henry W.	Wilkesbarre, Pa.	R.	12	July 10, 1839	Susquehanna Co., Pa.	Lawyer	57.
Parker, R. Wayne	Newark, N. J.	R.	6	Aug. 6, 1848	New Jersey	Lawyer	54, 55, 56, 57.
Patterson, George R.	Ashland, Pa.	R.	13	Nov. 9, 1863	Lewistown, Pa.	Merchant	57.
Patterson, Malcolm R.	Memphis, Tenn.	D.	10	July 7, 1861	Somerville, Ala.	Lawyer	57.
Payne, Sereno E.	Auburn, N. Y.	R.	28	June 26, 1843	Hamilton, N. Y.	Lawyer	48, 49, 51 to 57 consecut'ly.
Pearre, George A.	Cumberland, Md.	R.	6	July 16, 1860	Cumberland, Md.	Lawyer	56, 57.
Perkins, James B.	Rochester, N. Y.	R.	31	Nov. 4, 1847	St. Croix Falls, Wis.	Historian	57.
Pierce, Rice A.	Union City, Tenn.	D.	9	July 3, 1849	Weakley Co., Tenn.	Lawyer	48, 51, 52, 55, 56, 57.
Polk, Rufus K.	Danville, Pa.	D.	17	Aug. 23, 1866	Maury Co., Tenn.	Manufacturer	56, 57.
Pou, Edward W.	Smithfield, N. C.	D.	4	Sept. 9, 1863	Tuskegee, Ala.	Lawyer	57.
Powers, Llewellyn	Houlton, Me.	R.	4	1839	Somerset Co., Me.	Lawyer	45, 57.
Powers, Samuel L.	Newton, Mass.	R.	11	Oct. 26, 1848	Cornish, N. H.	Lawyer	57.
Prince, George W.	Galesburg, Ill.	R.	10	Mar. 4, 1854	Tazewell Co., Ill.	Lawyer	54, 55, 56, 57.
Pugsley, Cornelius A.	Peekskill, N. Y.	D.	16	July 17, 1850	Peekskill, N. Y.	Banker	57.
Randell, Choice B.	Sherman, Tex.	D.	5	Jan. 1, 1857	Murray Co., Ga.	Lawyer	57.
Randsell, Joseph E.	Lake Providence, La.	D.	5	Oct. 7, 1858	Alexandria, La.	Lawyer	56, 57.
Ray, George W.	Norwich, N. Y.	R.	26	Feb. 3, 1844	Chenango Co., N. Y.	Lawyer	48, 52 to 57 consecutively
Reeder, William A.	Logan, Kans.	R.	6	Aug. 28, 1849	Cumberland Co., Pa.	Banker	56, 57.
Reeves, Walter	Streator, Ill.	R.	11	Sept. 25, 1848	Brownsville, Pa.	Lawyer	54, 55, 56, 57.
Reid, Charles C.	Morrillton, Ark.	D.	4	June 15, 1868	Clarksville, Ark.	Lawyer	57.
Rhea, John S.	Russellville, Ky.	D.	3	Mar. 9, 1855	Logan Co., Ky.	Lawyer	55, 56, 57.
Rhea, William F.	Bristol, Va.	D.	10	Sept. 2, 1865	Appomattox Co., Va.	Lawyer	57.
Richardson, James D.	Murfreesboro, Tenn.	D.	5	Mar. 10, 1843	Rutherford Co., Tenn.	Lawyer	49 to 57 consecutively
Richardson, William	Huntsville, Ala.	D.	8	....	Limestone Co., Ala.	Lawyer	56, 57.
Rixey, John F.	Brandy, Va.	D.	8	Aug. 1, 1854	Culpeper Co., Va.	Lawyer	55, 56, 57.
Robb, Edward	Perryville, Mo.	D.	13	Mar. 19, 1857	Perry Co., Mo.	Lawyer	55, 56, 57.
Roberts, Ernest W.	Chelsea, Mass.	R.	7	Nov. 22, 1858	East Madison, Me.	Lawyer	56, 57.
Robertson, Samuel M.	Baton Rouge, La.	D.	6	Jan. 1, 1852	Plaquemine, La.	Lawyer	50 to 57 consecutively.
Robinson, James M.	Fort Wayne, Ind.	D.	12	1861	Fort Wayne, Ind.	Lawyer	55, 56, 57.
Robinson, John S.	Madison, Neb.	D.	3	May 4, 1856	Wheeling, W. Va.	Lawyer	56, 57.
Rucker, William W.	Keytesville, Mo.	D.	2	Feb. 1, 1855	Near Covington, Va.	Lawyer	56, 57.
Rumple, John N. W.	Marengo, Iowa	R.	2	Mar. 4, 1841	Near Fostoria, O.	Lawyer	57.
Ruppert, Jacob, Jr.	New York City	D.	15	Aug. 5, 1867	New York City	Brewer	56, 57.
Russell, Charles A.	Killingly, Conn.	R.	3	Mar. 2, 1852	Worcester, Mass.	Manufacturer	50 to 57 consecutively.
Ryan, William H.	Buffalo, N. Y.	D.	32	May 10, 1860	Hopkinton, Mass.	Contractor	56, 57.
Salmon, Joshua S.	Boonton, N. J.	D.	4	Feb. 2, 1846	Morris Co., N. J.	Lawyer	56, 57.
Scarborough, Robert B.	Conway, S. C.	D.	6	Oct. 29, 1861	Chesterfield C. H., S. C.	Lawyer	57.
Schirm, Charles R.	Baltimore, Md.	R.	4	Aug. 12, 1864	Baltimore, Md.	Lawyer	57.
Scott, Charles F.	Iola, Kans.	R.	At large	Sept. 7, 1860	Allen Co., Kans.	Editor	57
Selby, Thomas J.	Hardin, Ill.	D.	16	Dec. 4, 1840	Delaware Co., O. —	Lawyer	57.
Shackleford, Dorsey W.	Jefferson City, Mo.	D.	8	Aug. 27, 1853	Saline Co., Mo.	Lawyer	56, 57.
Shafroth, John F.	Denver, Colo.	F. S.	1	June 9, 1854	Fayette Co., Mo.	Lawyer	54, 55. 56. 57

Shallenberger, Ashton C.	**Alma, Neb.**	**D.**	**5**	**1862**	**Stark Co., Ill.**	**Banker**	**57.**
Shattuc, William B	Cincinnati, Ohio	R.	1	June 11, 1841	North Hector, N. Y.	Retired	55, 56, 57.
Shelden, Carlos D.	Houghton, Mich.	R.	12	June 10, 1840	Walworth Co., Wis.	Merchant	55, 56, 57.
Sheppard, John L.	Texarkana, Tex.	D.	4	April 13, 1854	Chambers Co., Ala.	Lawyer	56, 57.
Sherman James S.	Utica, N. Y.	R.	25	Oct. 24, 1855	Utica, N. Y.	Lawyer	50, 51, 53 to 57 consecutively
Showalter, Joseph B.	Chicora, Pa.	R.	25	Feb. 11, 1851	Fayette Co., Pa.	Physician	55, 56, 57.
Sibley, Joseph C.	Franklin, Pa.	R.	27	Feb. 18, 1850	Friendship, N. Y.	Manufacturer	53, 56, 57.
Sims, Thetis W.	Linden, Tenn.	D.	8	April 25, 1852	Wayne Co., Tenn.	Lawyer	55, 56, 57.
Skiles, William W.	Shelby, Ohio	R.	14	Dec. 11, 1849	Cumberland Co., Pa.	Lawyer	57.
Slayden, James I.	San Antonio, Tex.	D.	12	June 1, 1853	Graves Co., Ky.	Merchant	55, 56, 57.
Small, John H	Washington, N. C.	D.	1	Aug. 29, 1858	Washington, N. C.	Lawyer	56, 57.
Smith, David H.	Hodgensville, Ky.	D.	4	Dec. 19, 1854	Hart Co., Ky.	Lawyer	55, 56, 57.
Smith, George W.	Murphysboro, Ill.	R.	22	Aug. 18, 1846	Putnam Co., O.	Lawyer	51 to 57 consecutively.
Smith, Henry C.	Adrian, Mich.	R.	2	June 2, 1854	Canandaigua, N. C.	Lawyer	56, 57.
Smith, Samuel W.	Pontiac, Mich.	R.	6	Aug. 23, 1852	Oakland Co., Mich.	Lawyer	55, 56, 57.
Smith, Walter I.	Council Bluffs, Iowa	R.	9	July 10, 1862	Council Bluffs, Iowa	Lawyer	56, 57.
Smith, William Alden	Grand Rapids, Mich.	R.	5	May 12, 1859	Dowagiac, Mich.	Lawyer	54, 55, 56, 57.
Snodgrass, Charles E.	Crossville, Tenn.	D.	4	Dec. 26, 1866	Sparta, Tenn.	Lawyer	56, 57.
Snook, John S.	Paulding, Ohio	D.	5	Dec. 18, 1862	Paulding Co., O.	Lawyer	57.
Southard, James H.	Toledo, Ohio	R.	9	Jan. 20, 1851	Lucas Co., O.	Lawyer	54, 55, 56, 57.
Southwick, George N.	Albany, N. Y.	R.	20	Mar. 7, 1863	Albany, N. Y.	Editor	54, 55, 57.
Sparkman, Stephen M.	Tampa, Fla.	D.	1	July 29, 1849	Hernando Co., Fla.	Lawyer	54, 55, 56, 57.
Sperry, Nehemiah D.	New Haven, Conn.	R.	2	July 10, 1827	Woodbridge, Conn.	Builder	54, 55, 56, 57.
Spight, Thomas	Ripley, Miss.	D.	2	Oct. 25, 1841	Tippah Co., Miss.	Lawyer	55, 56, 57.
Stark, William L.	Aurora, Neb.	Fus.	4	July 29, 1853	New London Co., Conn.	Lawyer	55, 56, 57.
Steele, George W.	Marion, Ind.	R.	11	Dec. 13, 1839	Fayette Co., Ind.	Banker	47 to 50, 54 to 57.
Stephens, John H.	Vernon, Tex.	D.	13	....	Shelby Co., Tex.	Lawyer	55, 56, 57.
Stevens, Fred C.	St. Paul, Minn.	R.	4	Jan. 1, 1861	Boston, Mass.	Lawyer	55, 56, 57.
Stewart, James F.	Paterson, N. J.	R.	5	June 15, 1851	Paterson, N. J	Lawyer	54, 55, 56, 57.
Stewart, John K.	Amsterdam, N. Y.	R.	21	Oct. 20, 1853	Perth, N. Y.	Manufacturer	56, 57.
Storm, Frederic	Bay Side, N. Y.	R.	1	1844	Alsace	Manufacturer	57.
Sulloway, Cyrus A.	Manchester, N. H.	R.	1	June 8, 1839	Grafton, N. H.	Lawyer	54, 55, 56, 57.
Sulzer, William	New York City	D.	11	Mar. 18, 1863	Elizabeth, N. J.	Lawyer	54, 55, 56, 57.
Sutherland, George	Salt Lake City, Utah	R.	At large	Mar. 25, 1862	England	Lawyer	57.
Swanson, Claude A.	Chatham, Va.	D.	5	Mar. 3, 1862	Pittsylvania Co., Va.	Lawyer	53, 54, 55, 56, 57.
Talbert, W. Jasper	Parkesville, S. C.	D.	2	1846	Edgefield Co., S. C.	Farmer	53, 54, 55, 56, 57.
Tate, Farish Carter	Jasper, Ga.	D.	9	Nov. 20, 1856	Jasper, Ga.	Lawyer	53, 54, 55, 56, 57.
Tayler, Robert W.	Lisbon, Ohio	R.	18	Nov. 26, 1852	Youngstown, O.	Lawyer	54, 55, 56, 57.
Taylor, George W.	Demopolis, Ala.	D.	1	Jan. 16, 1849	Marengo Co., Ala.	Lawyer	55, 56, 57.
Tawney, James A.	Winona, Minn.	R.	1	Jan. 3, 1855	Adams Co., Pa.	Lawyer	53, 54, 55, 56, 57.
Thayer, John R.	Worcester, Mass.	D.	3	Mar. 9, 1845	Douglas, Mass.	Lawyer	56, 57.
Thomas, Charles R.	Newbern, N. C.	D.	3	Aug. 21, 1861	Beaufort, N. C.	Lawyer	56, 57.
Thomas, Lot	Storm Lake, Iowa	R.	11	Oct. 17, 1843	Fayette Co., Pa.	Lawyer	56, 57.
Thompson, Charles W.	Tuskegee, Ala	D.	5	Dec. 30, 1860	Macon Co., Ala.	Merchant	57.
Tirrell, Charles Q.	Natick, Mass.	R.	4	Dec. 10, 1844	Sharon, Mass.	Lawyer	57.
Tompkins, Arthur S.	Nyack, N. Y	R.	17	Aug. 26, 1865	Schoharie Co., N. Y.	Lawyer	56, 57.
Tompkins, Emmett	Columbus, Ohio	R.	12	Sept. 1, 1853	McConnelsville, O.	Lawyer	57.
Tongue, Thomas H.	Hillsboro, Ore.	R.	1	June 23, 1844	England	Lawyer	55, 56, 57.
Trimble, South	Frankfort, Ky.	D.	7	April 13, 1864	Wolfe Co., Ky.	Farmer	57.
Underwood, Oscar W.	Birmingham, Ala.	D.	9	May 6, 1862	Louisville, Ky.	Lawyer	54, 55, 56, 57.
Vandiver, Willard D.	Cape Girardeau, Mo.	D.	14	Mar. 30, 1854	Hardy Co., Va.	Professor	55, 56, 57.
Van Voorhis, Henry C.	Zanesville, Ohio	R.	15	May 11, 1852	Muskingum Co., O.	Lawyer	53, 54, 55, 56, 57.
Vreeland, Edward B.	Salamanca, N. Y.	R.	34	1857	Allegany Co., N. Y.	Banker	56, 57.
Wachter, Frank C.	Baltimore, Md.	R.	3	Sept. 16, 1861	Baltimore, Md.	Clothier	56, 57.
Wadsworth, James W.	Geneseo, N. Y.	R.	30	Oct. 12, 1846	Philadelphia, Pa.	Farmer	47, 48, 52 to 57.
Wanger, Irving P.	Norristown, Pa.	R.	7	Mar. 5, 1852	Chester Co., Pa.	Lawyer	53, 54, 55, 56, 57.
Warner, Vespasian	Clinton, Ill.	R.	13	April 23, 1842	Dewitt Co., Ill.	Lawyer	54, 55, 56, 57.
Warnock, William R.	Urbana, Ohio	R.	8	Aug. 29, 1838	Urbana, O.	Lawyer	57.
Watson, James E.	Rushville, Ind.	R.	6	Nov. 2, 1864	Randolph Co., Ind.	Lawyer	56, 57.
Weeks, Edgar	Mt. Clemens, Mich.	R.	7	Aug. 3, 1839	Mt. Clemens, Mich.	Lawyer	56, 57.
Wheeler, Charles K.	Paducah, Ky.	D.	1	April 18, 1863	Christian Co., Ky.	Lawyer	55, 56, 57.
White, James B.	Irvine, Ky.	D.	10	June 6, 1842	Clark Co., Ky.	Lawyer	57.
Wiley, Ariosto A.	**Montgomery, Ala.**	**D.**	**2**	**Nov. 6, 1848**	**Barbour Co., Ala.**	**Lawyer**	**57.**

HOUSE OF REPRESENTATIVES—FIFTY-SEVENTH CONGRESS—(Continued).

Names.	State and Home Post-Office.	Politics.	Cong. Dist.	When Born.	Place of Birth.	Occupation.	Congresses Elected to.
Williams, James R.	Carmi, Ill.	D.	20	Dec. 27, 1850	White Co., Ill.	Lawyer	51, 52, 53, 56, 57.
Williams, John S.	Yazoo City, Miss.	D.	5	July 30, 1854	Memphis, Tenn.	Lawyer	53, 54, 55, 56, 57.
Wilson, Frank E.	Brooklyn, N. Y.	D.	5	1857	Delaware Co., N. Y.	Physician	56, 57.
Woods, Samuel D.	Stockton, Cal.	R.	2.	Sept. 19, 1845	Maury Co., Tenn.	Lawyer	56, 57.
Wooten, Dudley G.	Dallas, Tex.	D.	6	....	Greene Co., Mo.	Lawyer	57.
Wright, Charles F.	Susquehanna, Pa.	R.	15	May 3, 1856	Susquehanna Co., Pa.	Banker	56, 57.
Young, James R.	Philadelphia, Pa.	R.	4	Mar. 10, 1847	Philadelphia, Pa.	Publicist	55, 56, 57.
Zenor, William T.	Corydon, Ind.	D.	3	April 30, 1846	Harrison Co., Ind.	....	....

TERRITORIAL DELEGATES.

Flynn, Dennis T.	Guthrie, Okla.	R.	....	Feb. 13, 1861	Phœnixville, Pa.	Lawyer	53, 54, 56, 57.
Rodey, Bernard S.	Albuquerque, N. Mex.	R.	....	1856	Ireland	Lawyer	57.
Smith, Marcus A.	Tucson, Ariz.	D.	....	Jan. 24, 1852	Cynthiana, Ky.	Lawyer	50, 51, 52, 53, 55, 57.
Wilcox, Robert W.	Honolulu, Hawaii Islands	R.	....	Feb. 15, 1855	Honolulu	....	56, 57.

UNITED STATES MINISTERS TO GREAT BRITAIN.

Presidents.	Ministers.	States.	Date of Commission.	Presidents.	Ministers.	States.	Date of Commission.
Washington	Thomas Pinckney	South Carolina	1792	Fillmore	Joseph R. Ingersoll	Pennsylvania	1852
Washington	Rufus King	New York	1796	Pierce	James Buchanan	Pennsylvania	1853
John Adams	Rufus King	New York	1796	Pierce	George M. Dallas	Pennsylvania	1856
Jefferson	James Monroe	Virginia	1803	Buchanan	George M. Dallas	Pennsylvania	1856
Jefferson	William Pinckney	Maryland	1806	Lincoln	Charles Francis Adams	Massachusetts	1861
Madison	Jonathan Russell, Charge d'Affaires	Rhode Island	1811	Johnson	Charles Francis Adams	Massachusetts	1861
Madison	John Quincy Adams	Massachusetts	1815	Johnson	Reverdy Johnson	Maryland	1868
Monroe	John Quincy Adams, Charge d'Affaires	Massachusetts	1817	Grant	John Lothrop Motley	Massachusetts	1869
Monroe	Richard Rush	Pennsylvania	1817	Grant	Robert C. Schenck	Ohio	1870
J. Q. Adams	Rufus King	New York	1825	Grant	Edward Pierrepont	New York	1876
J. Q. Adams	Albert Gallatin	Pennsylvania	1826	Hayes	John Welsh	Pennsylvania	1877
J. Q. Adams	W. B. Lawrence, Charge d'Affaires	New York	1827	Hayes	William J. Hoppin, Charge d'Affaires	New York	1879
J. Q. Adams	James Barbour	Virginia	1828	Hayes	James Russell Lowell	Massachusetts	1880
Jackson	Louis McLane	Delaware	1829	Garfield	James Russell Lowell	Massachusetts	1880
Jackson	Washington Irving, Charge d'Affaires	New York	1831	Arthur	James Russell Lowell	Massachusetts	1880
Jackson	Martin Van Buren	New York	1831	Cleveland	Edward J. Phelps	Vermont	1885
Jackson	Aaron Vail, Charge d'Affaires	New York	1832	B. Harrison	Robert T. Lincoln	Illinois	1889
Jackson	Andrew Stevenson	Virginia	1836	Cleveland	Thomas F. Bayard, Ambassador	Delaware	1893
Tyler	Edward Everett	Massachusetts	1841	McKinley	John Hay, Ambassador	Ohio	1897
Polk	Louis McLane	Maryland	1845	McKinley	Henry D. White, Charge d'Affaires	Rhode Island	1898
Polk	George Bancroft	New York	1846	McKinley	Joseph F. Choate, Ambassador	New York	1899
Taylor	J. C. B. Davis, Charge d'Affaires	Massachusetts	1849	Roosevelt	Joseph F. Choate, Ambassador	New York	1899
Taylor	Abbott Lawrence	Massachusetts	1849				

SENATORS—FIFTY-EIGHTH CONGRESS

[Begins March 4, 1903; Ends March 4, 1905.]

NAMES, EXPIRATION OF TERMS, POLITICS, HOME ADDRESSES.

Total number of Senators 90. 57 Republicans, 33 Democrats.

ALABAMA.

1907. John T. Morgan, D., Selma.
1909. Edmund W. Pettus, D., Selma.

ARKANSAS.

1907. James H. Berry, D., Bentonville.
1909. James P. Clarke, D., Little Rock.

CALIFORNIA.

1909. George C. Perkins, R., Oakland.
1905. Thomas R. Bard, R., Hueneme.

COLORADO.

1909. Henry M. Teller, D., Central City.
1907. Thomas M. Patterson, D., Denver.

CONNECTICUT.

1909. Orville H. Platt, R., Meriden.
1905. Joseph R. Hawley, R., Hartford.

DELAWARE.

1907. James F. Allee, R., Dover.
1905. Lewis H. Ball, R., Faulkland.

FLORIDA.

1909. Stephen R. Mallory, D., Pensacola.
1905. James P. Taliaferro, D., Jacksonville.

GEORGIA.

1907. Augustus O. Bacon, D., Macon.
1909. Alexander S. Clay, D., Marietta.

IDAHO.

1907. Fred T. Dubois, D., Blackfoot.
1909. Weldon B. Heyburn, R., Wallace.

ILLINOIS.

1907. Shelby M. Cullom, R., Springfield.
1909. Albert J. Hopkins, R., Aurora.

INDIANA.

1909. Charles W. Fairbanks, R., Indianapolis.
1905. Albert J. Beveridge, R., Indianapolis.

IOWA.

1909. William B. Allison, R., Dubuque.
1907. Jonathan P. Dolliver, R., Fort Dodge.

KANSAS.

1907. Joseph R. Burton, R., Abilene.
1909. Chester I. Long, R., Medicine Lodge.

KENTUCKY.

1907. Joseph C. S. Blackburn, D., Versailles.
1909. James B. McCreary, D., Richmond.

LOUISIANA.

1909. Samuel D. McEnery, D., New Orleans.
1907. Murphy J. Foster, D., Franklin.

MAINE.

1905. Eugene Hale, R., Ellsworth.
1907. William P. Frye, R., Lewiston.

MARYLAND.

1905. Louis E. McComas, R., Williamsport.
1909. Arthur P. Gorman, D., Laurel.

MASSACHUSETTS.

1907. George F. Hoar, R., Worcester.
1905. Henry Cabot Lodge, R., Nahant.

MICHIGAN.

1905. Julius C. Burrows, R., Kalamazoo.
1907. Russell A. Alger, R., Detroit.

MINNESOTA.

1907. Knute Nelson, R., Alexandria.
1905. Moses E. Clapp, R., St. Paul.

MISSISSIPPI.

1905. Hernando DeS. Money, D., Carrollton.
1907. Anselm J. McLaurin, D., Brandon.

MISSOURI.

1905. Francis M. Cockrell, D., Warrensburg.
1909. William J. Stone, D., St. Louis.

MONTANA.

1907. William A. Clark, D., Butte.
1905. Paris Gibson, D., Great Falls.

NEBRASKA.

1905. Charles H. Dietrich, R., Hastings.
1907. Joseph H. Millard, R., Omaha.

NEVADA.

1905. William M. Stewart, R., Carson City.
1909. Francis G. Newlands, D., Reno.

NEW HAMPSHIRE.

1909. Jacob H. Gallinger, R., Concord.
1907. Henry E. Burnham, R., Manchester.

NEW JERSEY.

1905. John Kean, R., Elizabeth.
1907. John F. Dryden, R., Newark.

NEW YORK.

1909. Thomas C. Platt, R., Owego.
1905. Chauncey M. Depew, R., Peekskill.

NORTH CAROLINA.

1907. Furnifold Mc. Simmons, D., Raleigh.
1909. Lee S. Overman, D., Salisbury.

NORTH DAKOTA.

1909. Henry C. Hansbrough, R., Devil's Lake.
1905. Porter J. McCumber, R., Wahpeton.

OHIO.

1909. Joseph B. Foraker, R., Cincinnati.
1911. Charles Dick, R., Akron.

OREGON.

1907. John H. Mitchell, R., Portland.
1909. Charles W. Fulton, R., Astoria.

PENNSYLVANIA.

1909. Boies Penrose, R., Philadelphia.
1905. Matthew S. Quay, R., Beaver.

RHODE ISLAND.

1905. Nelson W. Aldrich, R., Providence.
1907. George P. Wetmore, R., Newport.

SOUTH CAROLINA.

1907. Benjamin R. Tillman, D., Trenton.
1909. Asbury C. Latimer, D., Belton.

SOUTH DAKOTA.

1907. Robert J. Gamble, R., Yankton.
1909. Alfred B. Kittredge, R., Sioux Falls.

TENNESSEE.

1905. William B. Bate, D., Nashville.
1907. Edward W. Carmack, D., Memphis.

TEXAS.

1905. Charles A. Culberson, D., Dallas.
1907. Joseph W. Bailey, D., Gainesville.

UTAH.

1905. Thomas Kearns, R., Salt Lake City.
1909. Reed Smoot, R., Provo.

VERMONT.

1905. Redfield Proctor, R., Proctor.
1909. William P. Dillingham, R., Montpelier.

VIRGINIA.

1905. John W. Daniel, D., Lynchburg.
1907. Thomas S. Martin, D., Scotsville.

WASHINGTON.

1905. Addison G. Foster, R., Tacoma.
1909. Levi Ankeny, R., Walla Walla.

WEST VIRGINIA.

1907. Stephen B. Elkins, R., Elkins.
1905. Nathan B. Scott, R., Wheeling.

WISCONSIN.

1909. John C. Spooner, R., Madison.
1905. Joseph V. Quarles, R., Milwaukee.

WYOMING.

1907. F. E. Warren, R., Cheyenne.
1905. Clarence D. Clark, R., Evanston.

HOUSE OF REPRESENTATIVES—FIFTY-EIGHTH CONGRESS.

DISTRICTS, NAMES OF MEMBERS, POLITICS, HOME POST-OFFICE, CONGRESSES ELECTED TO.

Republicans, 208; Democrats, 178; whole number, 386. Speaker, Joseph G. Cannon, R.

ALABAMA.

1. George W. Taylor, D., Demopolis, 55 to 58 consec.
2. Ariosto A. Wiley, D., Montgomery, 57, 58.
3. Henry D. Clayton, D., Eufaula, 55 to 58 consec.
4. Sidney J. Bowie, D., Anniston, 57, 58.
5. C. W. Thompson, D., Tuskegee, 57, 58.
6. John H. Bankhead, D., Fayette, 50 to 58 consec.
7. John L. Burnett, D., Gadsden, 56 to 58 consec.
8. William Richardson, D., Huntsville, 56 to 58 consec.
9. O. W. Underwood, D., Birmingham, 54 to 58 consec.

ARKANSAS.

1. R. Bruce Macon, D., Helena, 58.
2. S. Brundige, Jr., D., Searcy, 55 to 58 consec.
3. H. A. Dinsmore, D., Fayetteville, 53 to 58 consec.
4. John S. Little, D., Greenwood, 53 to 58 consec.
5. Charles C. Reid, D., Morrillton, 57, 58.
6. J. T. Robinson, D., Lonoke, 58.
7. R. M. Wallace, D., Magnolia, 58.

CALIFORNIA.

1. J. N. Gillett R., Eureka, 58.
2. Theodore A. Bell, D., Napa, 58.
3. Victor H. Metcalf, R., Oakland, 56 to 58 consec.
4. E. J. Livernash, D., San Francisco, 58.
5. William J. Wynn, D., San Francisco, 58.
6. J. C. Needham, R., Modesto, 56 to 58 consec.
7. James McLachlan, R., Passadena, 54, 57, 58.
8. M. J. Daniels, R., Riverside, 58.

COLORADO.

At large. F. E. Brooks, R., Colorado Springs, 58.
1. John F. Shafroth, D., Denver, 54 to 58 consec.
2. H. M. Hogg, R., Telluride, 58.

CONNECTICUT.

1. George L. Lilley, R., Waterbury, 58.
2. E. Stevens Henry, R., Rockville, 54 to 58 consec.
3. N. D. Sperry, R., New Haven, 54 to 58 consec.
4. F. B. Brandegee, R., New London, 58.
5. Ebenezer J. Hill, R., Norwalk, 54 to 58 consec.

DELAWARE.

At large. Henry M. Houston, D., Millsboro, 58.

FLORIDA.

1. S. M. Sparkman, D., Tampa, 54 to 58 consec.
2. Robert W. Davis, D., Palatka, 55 to 58 consec.
3. William B. Lamar, D., Monticello, 58.

GEORGIA.

1. Rufus E. Lester, D., Savannah, 51 to 58 consec.
2. James M. Griggs, D., Dawson, 55 to 58 consec.
3. Elijah B. Lewis, D., Montezuma, 55 to 58 consec.
4. William C. Adamson, D., Carrollton, 55 to 58 consec.
5. L. F. Livingston, D., Covington, 52 to 58 consec.
6. Charles L. Bartlett, D., Macon, 55 to 58 consec.
7. John W. Maddox, D., Rome, 53 to 58 consec.
8. William M. Howard, D., Lexington, 55 to 58 consec.
9. Farish C. Tate, D., Jasper, 53 to 58 consec.
10. T. W. Hardwick, D., Sandersville, 58.
11. William G. Brantley, D. Brunswick, 55 to 58 consec.

IDAHO.

At large. Burton L. French, R., Moscow, 58.

ILLINOIS.

1. Martin Emerich, D., Chicago, 58.
2. James R. Mann, R., Chicago, 55 to 58 consec.
3. William W. Wilson, R., Chicago, 58.
4. George P. Foster, D., Chicago, 56, 57, 58.
5. James McAndrews, D., Chicago, 57, 58.
6. William Lorimer, R., Chicago, 58.
7. Philip Knopf, R., Chicago, 58.
8. William F. Mahoney, D., Chicago, 57, 58.
9. Henry S. Boutell, R., Chicago, 55 to 58 consec.
10. George E. Foss, R., Chicago, 54 to 58 consec.
11. H. M. Snapp, R., Joliet, 58.
12. Charles E. Fuller, R., Belvidere, 58.
13. Robert R. Hitt, R., Mt. Morris, 48 to 58 consec.
14. B. F. Marsh, R., Warsaw, 58.
15. George W. Prince, R., Galesburg, 54 to 58 consec.
16. Joseph V. Graff, R., Peoria, 54 to 58 consec.
17. J. A. Sterling, R., Bloomington, 58.
18. J. G. Cannon, R., Danville, 43 to 58 except 52.
19. V. Warner, R., Clinton, 54 to 58 consec.
20. H. T. Rainey, D., Carrollton, 58.
21. B. F. Caldwell, D., Chatham, 56, 57, 58.
22. W. A. Rodenburg, R., East St. Louis, 58.
23. Joseph B. Crowley, D., Robinson 56, 57, 58.
24. James R. Williams, D., Carmi, 51 to 53, 57, 58.
25. George W. Smith, R., Murphysboro, 51 to 58 consec.

INDIANA.

1. J. A. Hemenway, R., Booneville, 54 to 58 consec.
2. Robert W. Miers, D., Bloomington, 55 to 58 consec.
3. William T. Zenor, D., Corydon, 55 to 53 consec.
4. F. M. Griffith, D., Vevay, 55 to 58 consec.
5. Elias S. Holiday, R., Brazil, 57, 58.
6. James E. Watson, R., Rushville, 54, 56 to 58 consec.
7. Jesse Overstreet, R., Indianapolis, 55 to 58 consec.
8. George W. Cromer, R., Muncie, 56, 57, 58.
9. Charles B. Landis, R Delphi, 55 to 58 consec.
10. E. D. Crumpacker, R., Valparaiso, 55 to 58 consec.
11. F. K. Landis, R., Logansport, 58.
12. James M. Robinson, D., Fort Wayne, 55 to 58 consec.
13. Abraham L. Brick, R., South Bend, 56, 57, 58.

IOWA.

1. Thomas Hedge, R., Burlington, 56, 57, 58.
2. Martin J. Wade, D., Iowa City, 58.
3. B. P. Birdsall, R., Clarion, 58.
4. Gilbert N. Haugen, R., Northwood, 56, 57, 58.
5. Robert G. Cousins, R., Tipton, 53 to 58 consec.
6. John F. Lacey, R., Oskaloosa, 53 to 58 consec.
7. J. A. T. Hull, R., Des Moines, 52 to 58 consec.
8. William P. Hepburn, R., Clarinda, 47 to 49, 53 to 58.
9. Walter I. Smith, R., Council Bluffs, 57, 58.
10. James P. Conner, R., Denison, 56, 57, 58.
11. Lot Thomas, R., Storm Lake, 56, 57, 58.

KANSAS.

At large. C. F. Scott, R., Iola, 57, 58.
1. Charles Curtis, R., Topeka, 56, 57, 58.
2. J. D. Bowersock, R., Lawrence, 56, 57, 58.
3. P. P. Campbell, R., Pittsburg, 58.
4. James M. Miller, R., Council Grove, 56, 57, 58.
5. W. A. Calderhead, R., Marysville, 54, 56 to 58.
6. William A. Reeder, R., Logan, 56, 57, 58.
7. Victor Murdock, R., 58, Wichita.

KENTUCKY.

1. Ollie M. James, D., Marion, 58.
2. A. O. Stanley, D., Henderson, 58.
3. John S. Rhea, D., Russellville, 55 to 58 consec.
4. David H. Smith, D., Hodgensville, 55 to 58 consec.
5. Swagar Sherly, D., Louisville, 58.
6. D. Linn Gooch, D., Covington, 57, 58.
7. South Trimble, D., Frankfort, 57, 58.
8. George G. Gilbert, D., Shelbyville, 56, 57, 58.
9. James N. Kehoe, D., Maysville, 57, 58.
10. F. A. Hopkins, D., Prestonsburg, 58.
11.

LOUISIANA.

1. Adolph Meyer, D., New Orleans, 52 to 58 consec.
2. Robert C. Davey, D., New Orleans, 53, 55 to 58 consec.
3. R. F. Broussard, D., New Iberia, 55 to 58 consec.
4. Phanor Breazeale, D., Natchitoches, 56, 57, 58.
5. J. E. Ransdell, D. L., Providence, 56, 57, 58.
6. S. M. Robertson, D., Baton Rouge, 50 to 58 consec.
7. A. P. Pugo, D., Lake Charles, 58.

MAINE.

1. Amos L. Allen, R., Alfred, 56, 57, 58.
2. Charles E. Littlefield, R., Rockland, 56, 57, 58.
3. Edwin C. Burleigh, R., Augusta, 55 to 58 consec.
4. Llewellyn Powers, R., Houlton, 45, 57, 58.

MARYLAND.

1. William H. Jackson, R., Salisbury, 57, 58.
2. J. F. C. Talbot, D., Towson, 58.
3. Frank C. Wachter, R., Baltimore, 56, 57, 58.
4. J. W. Denny, D., Baltimore, 58.
5. Sidney E. Mudd, R., La Plata, 51, 55 to 58.
6. George A. Pearre, R., Cumberland, 56, 57, 58.

MASSACHUSETTS.

1. George P. Lawrence, R., North Adams, 55 to 58 consec
2. Fred. H. Gillett, R., Springfield, 53 to 58 consec.
3. John R. Thayer, D., Worcester, 56 to 58 consec.
4. Charles Q. Tirrell, R., Natick, 57, 58.

5. Butler Ames, R., Lowell, 58.
6. A. P. Gardner, R., Hamilton, 58.
7. Ernest W. Roberts, R. Chelsea, 56, 57, 58.
8. Samuel W. McCall, R., Winchester, 53 to 58 consec.
9. J. A. Keliher, D., Boston, 58.
10. W. S. McNary, D., Boston, 58.
11. John A. Sullivan, D., Boston, 58.
12. Samuel L. Powers, R., Newton, 57. 58.
13. William S. Greene, R., Fall River, 55 to 58 consec.
14. William C. Lovering, R., Taunton, 55 to 58 consec.

MICHIGAN.

1. Alfred Lucking, D., Detroit, 58.
2. C. E. Townsend, R., Jackson, 58.
3. Washington Gardner, R., Albion, 56, 57, 58.
4. E. L. Hamilton, R., Niles, 55 to 58.
5. William A. Smith, R., Grand Rapids, 54 to 58.
6. Samuel W. Smith, R., Pontiac, 55 to 58.
7. Henry McMoran, R., Port Huron, 58.
8. Joseph W. Fordney, R., Saginaw, 56, 57, 58.
9. Roswell P. Bishop, R., Ludington, 54 to 58.
10. George A. Loud, R., Au Sable, 58.
11. A. B. Darragh, R., St. Louis, 57, 58.
12. H. O. Young, R., Ishpeming, 58.

MINNESOTA.

1. James A. Tawney, R., Winona, 53 to 58 consec.
2. J. T. McCleary, R., Mankato, 53 to 58 consec.
3. C. R. Davis, R., St. Peter, 58.
4. Fred C. Stevens, R., St. Paul, 55 to 58 consec.
5. John Lind, D., Minneapolis, 58.
6. C. B. Buckman, R., Little Falls, 58.
7. A. J. Voltstead, R., Granite Falls, 58.
8. Adam Bede, R., Pine City, 58.
9. H. Steenerson, R., Crookston, 58.

MISSISSIPPI.

1. E. S. Candler, D., Corinth, 57, 58.
2. Thomas Spight, D., Ripley, 55 to 58.
3. B. G. Humphreys, D., Greenwood, 58.
4. W. S. Hill, D., Winona, 58.
5. Adam Byrd, D., Philadelphia, 58.
6. E. J. Bowers, D., Bay St. Louis, 58.
7. F. A. McLain, D., Gloster, 55 to 58.
8. J. S. Williams, D., Yazoo, 58.

MISSOURI.

1. James T. Lloyd, D., Shelbyville, 55 to 58.
2. William W. Rucker, D., Keytesville, 56, 57, 58.
3. J. Dougherty, D., Liberty, 56, 57, 58.
4. Charles F. Cochran, D., St. Joseph, 55 to 58.
5. William S. Cowherd, D., Kansas City, 55 to 58.
6. D. A. DeArmond, D., Butler, 55 to 58.
7. C. W. Hamlin, D., Springfield, 58.
8. D. W. Shackelford, D., Jefferson City, 56, 57, 58.
9. Champ Clark, D., Bowling Green, 53, 55 to 58.
10. Richard Bartholdt, R., St. Louis, 53 to 58.
11. John T. Hunt, D., St. Louis, 58.
12. James J. Butler, D., St. Louis, 57, 58.
13. Edward Robb, D., Perryville, 55 to 58.
14. W. D. Vandiver, D., Cape Girardeau, 57, 58.
15. M. E. Benton, D., Neosho, 55 to 58.
16. Robert Lamar, D., Houston, 58.

MONTANA.

1. Joseph M. Dixon, R., Missoula, 58.

NEBRASKA.

1. Elmer J. Burkett, R., Lincoln, 56 to 58.
2. G. M. Hitchcock, D., Omaha, 58.
3. J. J. McCarthy, R., Ponca, 58.
4. E. H. Hinshaw, R., Fairbury, 58.
5. George W. Norris, R., McCook, 58.
6. M. P. Kinkaid, R., O'Neill, 58.

NEVADA.

1. C. D. Van Duzer, D., Tonopah, 58.

NEW HAMPSHIRE.

1. Cyrus A. Sulloway, R., Manchester, 54 to 58.
2. Frank D. Currier, R., Canaan, 57, 58.

NEW JERSEY.

1. H. C. Loudenslager, R., Paulsboro, 53 to 58.
2. John J. Gardner, R., Atlantic City, 53 to 58.
3. Benjamin F. Howell, R., New Brunswick, 54 to 58.
4. William M. Lanning, R., Trenton, 58.
5. Charles N. Fowler, R., Elizabeth, 54 to 58.
6. William Hughes, D., Patterson, 58.
7. R. Wayne Parker, R., Newark, 54 to 58.
8. William H. Wiley, R., East Orange, 58.
9. Allan Benny, D., Bayonne, 58.
10. Allan L. McDermott, D., Jersey City, 56 to 58.

NEW YORK.

1. Townsend Scudder, D., Glen Head, 56 and 58.
2. George H. Lindsay, D., Brooklyn, 57, 58.
3. Charles T. Dunwell, R., Brooklyn, 57, 58.
4. Frank E. Wilson, D., Brooklyn, 56 to 58.
5. E. M. Bassett, D., Brooklyn, 58.
6. Robert H. Baker, D., Brooklyn, 58.
7. John J. Fitzgerald, D., Brooklyn, 56 to 58.
8. T. D. Sullivan, D., New York, 58.
9. Henry M. Goldfogle, D., New York, 57, 58.
10. William Sulzer, D., New York, 54 to 58.
11. William R. Hearst, D., New York, 58.
12. George B. McClellan, D., New York, 54 to 58.
13. F. B. Harrison, D., New York, 58.
14. Ira E. Rider, D., New York, 58.
15. William H. Douglas, R., New York, 57, 58.
16. Jacob Ruppert, D., New York, 56 to 58.
17. F. E. Shober, D., New York, 58.
18. Joseph A. Goulden, D., Fordham, 58.
19. Norton P. Otis, R., Yonkers, 58.
20. Thomas W. Bradley, R., Walden, 58.
21. John H. Ketcham, R., Dover Plains, 46 to 52, 55 to 58.
22. William H. Draper, R., Troy, 57, 58.
23. George N. Southwick, R., Albany, 54, 55, 57, 58.
24. George J. Smith, R., Kingston, 58.
25. Lucius N. Littauer, R., Gloversville, 55 to 58.
26. W. H. Flack, R., Malone, 58.
27. James S. Sherman, R., Utica, 50, 51, 53 to 58.
28. Charles L. Knapp, R., Lowville, 57, 58.
29. Michael E. Driscoll, R., Syracuse, 56 to 58.
30. John W. Dwight, R., Dryden, 58.
31. Sereno E. Payne, R., Auburn, 48, 49, 51 to 58.
32. James B. Perkins, R., Rochester, 57, 58.
33. Charles W. Gillet, R., Addison, 53 to 58.
34. James W. Wadsworth, R., Geneseo, 47, 48, 52 to 58.
35. William H. Ryan, D., Buffalo, 56 to 58.
36. De A. S. Alexander, R., Buffalo, 55 to 58.
37. Edward B. Vreeland, R., Salamanca, 56 to 58.

NORTH CAROLINA.

1. John H. Small, D., Washington, 56 to 58.
2. Claude Kitchen, D., Scotland Neck, 57, 58.
3. Charles R. Thomas, D., Newbern, 56 to 58.
4. Edward W. Pou, D., Smithfield, 57, 58.
5. William W. Kitchen, D., Roxboro, 55 to 58.
6. G. B. Patterson, D., Maxton, 58.
7. Robert N. Page, D., Biscoe, 58.
8. Theodore F. Kluttz, D., Salisbury, 56 to 58.
9. E. Y. Webb, D., Shelby, 58.
10. J. M. Gudger, Jr., D., Asheville, 58.

NORTH DAKOTA.

At large. Thomas F. Marshall, R., Oakes, 57, 58.
At large. B. F. Spalding, R., Fargo, 56, 58.

OHIO.

1. Nicholas Longworth, R., Cincinnati, 58.
2. H. P. Goebel, R., Cincinnati, 58.
3. Robert M. Nevin, R., Dayton, 56 to 58.
4. H. C. Garber, D., Greenville, 58.
5. John S. Snook, D., Paulding, 57, 58.
6. Charles Q. Hildebrant, R., Wilmington, 57, 58.
7. Thomas B. Kyle, R., Troy, 57, 58.
8. William R. Warnock, R., Urbana, 57, 58.
9. James H. Southard, R., Toledo, 54 to 58.
10. Stephen Morgan, R., Oak Hill, 56 to 58.
11. Charles H. Grosvenor, R., Athens, 49 to 51, 53 to 58.
12. DeWitt C. Badger, D., Columbus, 58.
13. A. H. Jackson, R., Fremont, 58.
14. William W. Skiles, R., Shelby, 57, 58.
15. Henry C. Van Voorhis, R., Zanesville, 53 to 58.
16. Capell L. Weems, R., St. Clairsville, 58.
17. J. W. Cassingham, D., Coshocton, 57, 58.
18. James Kennedy, R., Youngstown, 58.
19. Charles Dick, R., Akron, 55 to 58.
20. Jacob A. Beidler, R., Willoughby, 57, 58.
21. Theodore E. Burton, R., Cleveland, 51, 54 to 58.

OREGON.

1. Binger Hermann, R., Roseburg, 49-54, 58.
2. J. N. Williamson, R., Prineville, 58.

PENNSYLVANIA.

1. Henry H. Bingham, R., Philadelphia, 46 to 58.
2 Robert Adams, Jr., R., Philadelphia, 53 to 58.
3. Geo. A. Castor, R., Philadelphia, 58.
4. Reuben O. Moon, R., Philadelphia, 58.
5. Edward de V. Morrell, R., Philadelphia, 56 to 58.
6. George D. McCreary, R., Philadelphia, 58.
7. Thomas S. Butler, R., West Chester, 55 to 58.
8. Irving P. Wanger, R., Norristown, 53 to 58.
9. H. Burd Cassel, R., Marietta, 57, 58.

10. George Howell, D., Scranton, 58.
11. Henry W. Palmer, R., Wilkes Barre, 57, 58.
12. George R. Patterson, R., Ashland, 57, 58.
13. Marcus C. L. Kline, D., Allentown, 58.
14. Charles F. Wright, R., Susquehanna, 56 to 58.
15. Elias Deemer, R., Williamsport, 57, 58.
16. Charles H. Dickerman, D., Milton, 58.
17. Thaddeus M. Mahon, R., Chambersburg, 53 to 58.
18. Marlin E. Olmsted, R., Harrisburg, 55 to 58.
19. Alvin Evans, R., Ebensburg, 57 58.
20. Daniel F. Lafean, R., York, 58.
21. S. R. Dresser R., Bradford, 58.
22. George F. Huff, R., Greensburg, 52, 54, 58.
23. Allen F. Cooper, R., Uniontown, 58.
24. Ernest F. Acheson, R., Washington, 54 to 58.
25. Arthur L. Bates, R., Meadville, 57, 58.
26. J. H. Shull, D., Stroudsburg, 58.
27. W. O. Smith, R., Punxsutawney, 58.
28. Joseph C. Sibley, R., Franklin, 53, 56 to 58.
29. G. Shiras, 3d, R., Allegheny, 58.
30. John Dalzell, R., Pittsburgh, 50 to 58.
31. H. Kirke Porter, R., Pittsburgh, 58.
32. James W. Brown, R., Pittsburgh, 58.

RHODE ISLAND

1. D. L. D. Granger, D., Providence, 58.
2. Adin B. Capron, R., Smithfield, 55 to 58.

SOUTH CAROLINA.

1. George S. Legare, D., Charleston, 58.
2. George W. Croft, D., Aiken, 58.
3. Wyatt Aikin, D., Abbeville, 58.
4. Joseph T. Johnson, D., Spartanburg, 57, 58.
5. David E. Finley, D., Yorkville, 56 to 58.
6. Robert B. Scarborough, D., Conway 57, 58.
7. A. F. Lever, D., Lexington, 57, 58.

SOUTH DAKOTA.

At large. Charles H. Burke, R., Pierre, 56 to 58.
At large. Eben W. Martin, R., Deadwood, 57, 58.

TENNESSEE.

1. Walter P. Brownlow, R., Jonesboro, 55 to 58.
2. Henry R. Gibson, R., Knoxville, 54 to 58.
3. John A. Moon, D., Chattanooga, 55 to 58.
4. M. C. Fitzpatrick, D., Nashville, 58.
5. James D. Richardson, D., Murfreesboro, 49 to 58.
6. John W. Gaines, D., Nashville, 55 to 58.
7. Lemuel P. Padgett, D., Columbia, 57, 58.
8. Thetus W. Sims, D., Linden, 55 to 58.
9. Rice A. Pierce, D., Union City, 48, 51, 52, 55 to 58
10. Malcolm R. Patterson, D., Memphis, 57, 58.

TEXAS.

1. Morris Sheppard, D., Texarkana, 58.
2. Sam. B. Cooper, D., Beaumont, 53 to 58.
3. Gordon Russell, D., Tyler, 58.
4. Choice B. Randell, D., Sherman, 57, 58.
5. Jack Beall, D., Waxahachie. 58.
6. Scott Field, D., Calvert, 58.
7. A. W. Gregg, D., Palestine, 58.
8. Thomas H. Ball, D., Huntsville, 55 to 58
9. George F. Burgess, D., Gonzales, 57, 58.
10. Albert S. Burleson, D., Austin, 56 to 58.
11. Robert L. Henry, D., Waco, 55 to 58.
12. O. W. Gillespie, D., Fort Worth, 58.
13. John H. Stephens, D., Vernon, 55 to 58.
14. James L. Slayden, D., San Antonio, 55 to 58.
15. John N. Garner, D., Uvalde, 58.
16. W. R. Smith, D., Colorado, 58.

UTAH.

At large. Joseph Howell, R., Logan, 58.

VERMONT.

1. David J. Foster, R., Burlington, 57, 58.
2. Kittredge Haskins, R., Brattleboro, 57, 58.

VIRGINIA.

1. William A. Jones, D., Warsaw, 52 to 58.
2. Henry L. Maynard, D., Portsmouth, 57, 58.
3. John Lamb, D., Richmond. 55 to 58.
4. R. G. Southall, D., Amelia, 58.
5. Claude A. Swanson, D., Chatham, 53 to 58.
6. Carter Glass, D., Lynchburg, 58.
7. James Hay, D. Madison, 55 to 58.
8. John F. Rixey, D. Brandy, 55 to 58.
9. Campbell Slemp, R., Big Stone Gap, 58.
10. Henry D. Flood, D., West Appomattox, 57, 58.

WASHINGTON.

At large. Wesley L. Jones, R., Yakima, 56 to 58.
At large. Francis W. Cushman, R., Tacoma, 56 to 58.
At large. William E. Humphrey, R., Seattle, 58.

WEST VIRGINIA.

1. B. B. Dovener, R., Wheeling, 54 to 58.
2. Alston G. Dayton, R., Philippi, 54 to 58.
3. Joseph H. Gaines, R., Charleston, 57, 58.
4. Harry C. Woodyard, R., Spencer, 58.
5. James A. Hughes, R., Huntington, 57, 58.

WISCONSIN.

1. Henry A. Cooper, R., Racine, 53 to 58.
2. H. C. Adams, R., Madison, 58.
3. Joseph W. Babcock, R., Necedah, 53 to 58.
4. Theobald Otjen, R., Milwaukee, 54 to 58.
5. William H. Stafford, R., Milwaukee, 58.
6. C. H. Weisse, D., Sheboygan Falls, 58.
7. John J. Esch, R., La Crosse, 56 to 58.
8. James H. Davidson, R., Oshkosh, 55 to 58.
9. Edward S. Minor, R., Sturgeon Bay, 54 to 58.
10. Webster E. Brown, R., Rhinelander, 57, 58.
11. John J. Jenkins, R., Chippewa Falls, 54 to 58.

WYOMING.

1. Frank W. Mondell, R., Newcastle, 54, 56 to 58.

TERRITORIAL DELEGATES.

Arizona, J. F. Wilson, D., Prescott.
New Mexico, B. S. Rodey, R., Albuquerque.
Oklahoma, Bird S. Maguire, R., Pawnee.
Hawaii, Jonah Kalanianaole, R., Honolulu.

NUMBERS AND DATES OF THE UNITED STATES CONGRESSES.

Members of Congress are elected in even years, but the life of a Congress begins and ends in odd years, as, for instance, the life of the Fifty-eighth Congress begins March 5, 1903, and ends March 4, 1905, by *sine die* adjournment. It was formerly the custom to refer to a member's service in Congress by years, as, "from 1903 to 1905"; but now we would say, "he served in the Fifty-eighth Congress." This fact makes the following table very interesting and convenient for reference.

No. of Congress.	*Dates.*	*No. of Congress.*	*Dates.*	*No. of Congress.*	*Dates.*	*No. of Congress.*	*Dates.*
First	1789–91	Sixteenth	1819–21	Thirty-first	1849–51	Forty-fifth	1877–79
Second	1791–93	Seventeenth	1821–23	Thirty-second	1851–53	Forty-sixth	1879–81
Third	1793–95	Eighteenth	1823–25	Thirty-third	1853–55	Forty-seventh	1881–83
Fourth	1795–97	Nineteenth	1825–27	Thirty-fourth	1855–57	Forty-eighth	1883–85
Fifth	1797–99	Twentieth	1827–29	Thirty-fifth	1857–59	Forty-ninth	1885–87
Sixth	1799–1801	Twenty-first	1829–31	Thirty-sixth	1859–61	Fiftieth	1887–89
Seventh	1801–03	Twenty-second	1831–33	Thirty-seventh	1861–63	Fifty-first	1889–91
Eighth	1803–05	Twenty-third	1833–35	Thirty-eighth	1863–65	Fifty-second	1891–93
Ninth	1805–07	Twenty-fourth	1835–37	Thirty-ninth	1865–67	Fifty-third	1893–95
Tenth	1807–09	Twenty-fifth	1837–39	Fortieth	1867–69	Fifty-fourth	1895–97
Eleventh	1809–11	Twenty-sixth	1839–41	Forty-first	1869–71	Fifty-fifth	1897–99
Twelfth	1811–13	Twenty-seventh	1841–43	Forty-second	1871–73	Fifty-sixth	1899–1901
Thirteenth	1813–15	Twenty-eighth	1843–45	Forty-third	1873–75	Fifty-seventh	1901–03
Fourteenth	1815–17	Twenty-ninth	1845–47	Forty-fourth	1875–77	Fifty-eighth	1903–05
Fifteenth	1817–19	Thirtieth	1847–49			Fifty-ninth	1905–1907

UNITED STATES SENATORS—FIFTY-NINTH CONGRESS.

[Begins March 4, 1905; Ends March 3, 1907.]

Names, Home Addresses, Service, Politics.

Total number of Senators, 90. Republicans, 58; Democrats, 32.

Hon. Charles W. Fairbanks, Vice-President and President of Senate.

Hon. William P. Frye, President of Senate Pro Tempore.

ALABAMA. Service.
John T. Morgan, D., Selma, March 4, 1877–March 3, 1907.
Edmund W. Pettus, D., Selma, March 4, 1897–March 3, 1909.

ARKANSAS.
J. H .Berry, D., Bentonville, March 25, 1885–March 3, 1907.
James P. Clarke, D., Little Rock, March 4, 1903–March 3, 1909.

CALIFORNIA.
George C. Perkins, R., Oakland, June 22, 1893–March 3, 1909.
Frank P. Flint, R., Los Angeles, March 4, 1905–March 3, 1911.

COLORADO.
H. M. Teller, D., Central City, March 4, 1885–March 3, 1909.
Thomas M. Patterson, D., Denver, Mar. 4, 1901–Mar. 3, 1907.

CONNECTICUT.
Orville H. Platt, R., Meriden, May 4, 1879–March 3, 1909.
Morgan G. Bulkeley, R., Hartford, Mar. 4, 1905—Mar. 3, 1911.

DELAWARE.
J. Frank Allee, R., Dover, March 2, 1903–March 3, 1907.
No election, probable R.

FLORIDA.
Stephen W. Mallory, D., Pensacola, May 14, 1897–Mar. 3, 1909.
James P. Taliaferro, D., Jacksonville, April 20, 1899–Appointee.

GEORGIA.
Augustus O. Bacon, D., Macon, March 4, 1895–March 3, 1907.
Alexander S. Clay, D., Marietta, March 4, 1897–March 3, 1909.

IDAHO.
Fred. T. Dubois, D., Blackfoot, March 4, 1901–March 3, 1907.
Weldon B. Heyburn, R., Wallace, March 4, 1903–March 3, 1909.

ILLINOIS.
Shelby M. Cullom, R., Springfield, Mar. 4, 1883–Mar. 3, 1907.
Albert J. Hopkins, R., Aurora, March 4, 1903–March 3, 1909.

INDIANA.
Albert J. Beveridge, R., Indianapolis, Mar. 4, 1899–Mar. 3, 1911.
James M. Hemenway, R., Booneville, Mar. 4, 1905–Mar. 3, 1909.

IOWA.
William B. Allison, R., Dubuque, Mar. 4, 1873–Mar. 3, 1909.
J. P. Dolliver, R., Fort Dodge, Aug. 23, 1900–March 3, 1907.

KANSAS.
Joseph R. Burton, R., Abilene, March 4, 1901–March 3, 1907.
Chester I. Long, R., Medicine Lodge, Mar. 4, 1903–Mar. 3, 1909.

KENTUCKY.
J. C. S. Blackburn, D., Versailles, Mar. 4, 1901–Mar. 3, 1907.
James B. McCreary, D., Richmond, Mar. 4, 1903–Mar. 3, 1909.

LOUISIANA.
S. D. McEnery, D., New Orleans, Mar. 4, 1897–Mar. 3, 1909.
Murphy J. Foster, D., Franklin, March 4, 1901–March 3, 1907.

MAINE.
Eugene Hale, R., Ellsworth, March 4, 1881–March 3, 1911.
William P. Frye, R., Lewiston, March 8, 1881–March 3, 1907.

MARYLAND.
Arthur P. Gorman, D., Laurel, March 4, 1903–March 3, 1909.
Isidor Rayner, D., Baltimore, March 4, 1905–March 3, 1911.

MASSACHUSETTS.
Henry Cabot Lodge, R., Nahant, March 4, 1893–March 3, 1911.
Winthrop M. Crane, R., Dalton, Oct. 12, 1904–March 3, 1907.

MICHIGAN.
Julius C. Burrows, R., Kalamazoo, Jan. 23, 1895–March 3, 1911.
Russell A. Alger, R., Detroit, Sept. 27, 1902–March 3, 1907.

MINNESOTA.
Knute Nelson, R., Alexandria, March 4, 1895–March 3, 1907.
Moses E. Clapp, R., St. Paul, Jan. 23, 1901–March 3, 1911.

MISSISSIPPI.
H. D. Money, D., Carrollton, Dec. 7, 1897–March 3, 1911.
Anselm J. McLaurin, D., Brandon, Mar. 4, 1901–Mar. 3, 1913.

MISSOURI.
William J. Stone, D., St. Louis, March 4, 1903–March 3, 1909.
William Warner, R., Kansas City, Mar. 17, 1905–Mar. 3, 1911.

MONTANA. Service.
William A. Clark, D., Butte, March 4, 1901–March 3, 1907.
Thomas H. Carter, R., Helena, March 4, 1905–March 3, 1911.

NEBRASKA.
Joseph H. Millard, R., Omaha, March 28, 1901–March 3, 1907.
Elmer J. Burkett, R., Lincoln, March 4, 1905–March 3, 1911.

NEVADA.
Francis G. Newlands, D., Reno, March 4, 1903–March 3, 1909.
George S. Nixon, R., Winnemucca, Mar. 4, 1905–Mar. 3, 1911.

NEW HAMPSHIRE.
Jacob H. Gallinger, R., Concord, March 4, 1891–March 3, 1909.
Henry E. Burnham, R., Manchester, Mar. 4, 1901–Mar. 3, 1907.

NEW JERSEY.
John Kean, R., Elizabeth, March 4, 1899–March 3, 1911.
John F. Dryden, R., Newark, Jan. 29, 1902–March 3, 1907.

NEW YORK.
Thomas C. Platt, R., Owego, March 4, 1897–March 3, 1909.
C. M. Depew, R., New York City, Mar. 4, 1899–Mar. 3, 1911.

NORTH CAROLINA.
Lee S. Overman, D., Salisbury, March 4, 1903–March 3, 1909.
F. McL. Simmons, D., Raleigh, March 4, 1901–March 3, 1907.

NORTH DAKOTA.
H. C. Hansbrough, R., Devil's Lake, Mar. 4, 1891–Mar. 3, 1909.
Porter J. McCumber, R., Wahpebon, Mar. 4, 1899–Mar. 3, 1911.

OHIO.
Joseph B. Foraker, R., Cincinnati, Mar. 4, 1897–Mar. 3, 1909.
Charles Dick, R., Akron, March 2, 1904–March 3, 1911.

OREGON.
John H. Mitchell, R., Portland, March 4, 1901–March 3, 1907.
Charles W. Fulton, R., Astoria, March 4, 1903–March 3, 1909.

PENNSYLVANIA.
Boies Penrose, R., Philadelphia, March 4, 1897–March 3, 1909.
Philander C. Knox, R., Pittsburg, June 10, 1904–Mar. 3, 1911.

RHODE ISLAND.
George P. Wetmore, R., Newport, Mar. 4, 1895–Mar. 3, 1907.
Nelson W. Aldrich, R., Providence, Oct. 5, 1881–Mar. 3, 1911.

SOUTH CAROLINA.
Benjamin R. Tillman, D., Trenton, Mar. 4, 1895–Mar. 3, 1907.
Asbury C. Latimer, D., Belton, March 4, 1903–March 3, 1909.

SOUTH DAKOTA.
Robert J. Gamble, R., Yankton, March 4, 1901–March 3, 1907.
A. B. Kittredge, R., Sioux Falls, July 11, 1901–March 3, 1909.

TENNESSEE.
Edward W. Carmack, D., Memphis, Mar. 4, 1901–Mar. 3, 1907.
William B. Bate, D., Nashville, March 4, 1887–March 3, 1911.

TEXAS.
Joseph W. Bailey, D., Gainsville, Mar. 4, 1901–Mar. 3, 1907.
Charles A. Culberson, D., Dallas, Mar. 4, 1899–Mar. 3, 1911.

UTAH.
Reed Smoot, R., Provo, March 4, 1903–March 3, 1909.
Geo. Sutherland, R., Salt Lake City, Mar. 4, 1905–Mar. 3, 1911.

VERMONT.
W. P. Dillingham, R., Waterbury, Oct. 19, 1900–Mar. 3, 1909.
Redfield Proctor, R., Proctor, Nov. 1, 1891–March 3, 1911.

VIRGINIA.
Thomas S. Martin, D., Scottsville, Mar. 4, 1895–Mar. 3, 1907.
John W. Daniel, D., Lynchburg, March 4, 1887–March 3, 1911.

WASHINGTON.
Levi Ankeny, R., Walla Walla, March 4, 1903–March 3, 1909.
Samuel H. Piles, R., Seattle, March 4, 1905–March 3, 1911.

WEST VIRGINIA.
Stephen B. Elkins, R., Elkins, March 4, 1895–March 3, 1907.
Nathan B. Scott, R., Wheeling, March 4, 1899–March 3, 1911.

WISCONSIN.
John C. Spooner, R., Madison, March 4, 1897–March 3, 1909.
Robert M. La Follette, R., Madison, Mar. 4, 1905–Mar. 3, 1911.

WYOMING.
Francis E. Warren, R., Cheyenne, March 4, 1895–March 3, 1907.
Clarence D. Clark, R., Evanston, Feb. 6, 1895–March 3, 1911.

HOUSE OF REPRESENTATIVES—FIFTY-NINTH CONGNGRESS.

Districts, Names of Members, Politics, Home Post-Office, Congresses Elected to.

Whole number of members, 386. Republicans, 250; Democrats, 136.

ALABAMA.

1. George W. Taylor, D., Demopolis, 55 to 59 Congresses.
2. Ariosto W. Wiley, D., Montgomery, 57 to 59 Congresses.
3. Henry D. Clayton, D., Eufaula, 55 to 59 Congresses.
4. Sidney J. Bowie, D., Anniston, 57 to 59 Congresses.
5. I. Thomas Heflin, D., Lafayette, 59 Congress.
6. John H. Bankhead, D., Fayette, 50 to 59 Congresses.
7. John L. Burnett, D., Gadsden, 56 to 59 Congresses.
8. William Richardson, D., Huntsville, 56 to 59 Congresses.
9. O. W. Underwood, D., Birmingham, 54 to 59 Congresses.

ARKANSAS.

1. R. Bruce Macom, D., Helena, 58, 59 Congresses.
2. Stephen Brundige, Jr., D., Searcy, 55 to 59 Congresses.
3. J. C. Floyd, D., Yellville, 59 Congress.
4. John S. Little, D., Greenwood, 53 to 59 Congresses.
5. Charles C. Reid, D., Morrillton, 57 to 59 Congresses.
6. Joseph T. Robinson, D., Lonoke, 58, 59 Congresses.
7. Robert M. Wallace, D., Magnolia, 58, 59 Congresses.

CALIFORNIA.

1. James N. Gillett, R., Eureka, 58, 59 Congresses.
2. D. E. McKinley, R., Santa Rosa, 59 Congress.
3. Joseph R. Knowlton, R., Alameda, 59 Congress.
4. Julius Kahn, R., San Francisco, 59 Congress.
5. E. A. Hayes, R., San Jose, 59 Congress.
6. James C. Needham, R., Modesta, 56 to 59 Congresses.
7. James McLachlan, R., Pasadena, 54, 57 to 59 Congresses.
8. S. C. Smith, R., Bakersville, 59 Congress.

COLORADO.

Franklin E. Brooks (at large), R., Colorado Springs, 58, 59 Congresses.

1. Robert W. Bonynge, R., Denver, 59 Congress.
2. Herschel M. Hogg, R., Telluride, 58, 59 Congresses.

CONNECTICUT.

George L. Lilley (at large), R., Waterbury, 58, 59 Congresses.

1. E. Stevens Henry, R., Rockville, 59 Congress.
2. Nehemiah D. Sperry, R., New Haven, 54 to 59 Congresses.
3. Frank B. Brandegee, R., New London, 58, 59 Congresses.
4. Ebenezer J. Hill, R., Norwalk, 54 to 59 Congresses.

DELAWARE.

Hiram R. Burton (at large), R., Lewes, 59 Congress.

FLORIDA.

1. S. M. Sparkman, D., Tampa, 54 to 59 Congresses.
2. Robert W. Davis, D., Palatka, 55 to 59 Congresses.
3. William B. Lamar, D., Monticello, 58, 59 Congresses.

GEORGIA.

1. Rufus E. Lester, D., Savannah, 51 to 59 Congresses.
2. James M. Griggs, D., Dawson, 55 to 59 Congresses.
3. Elijah B. Lewis, D., Montezuma, 55 to 59 Congresses.
4. Wm. C. Adamson, D., Carrollton, 55 to 59 Congresses.
5. L. F. Livingstone, D., Covington, 52 to 59 Congresses.
6. Charles L. Bartlett, D., Macon, 55 to 59 Congresses.
7. Charles Lee, D., Chickamauga, 59 Congress.
8. Wm. M. Howard, D., Lexington, 55 to 59 Congress.
9. Thomas M. Bell, D., Gainesville, 59 Congress.
10. T. W. Hardwick, D., Sandersville, 58, 59 Congresses.
11. Wm. G. Brantley, D., Brunswick, 55 to 59 Congresses.

IDAHO.

1. Burton L. French, R., Moscow, 58, 59 Congresses.

ILLINOIS.

1. Martin B. Madden, R., Chicago, 59 Congress.
2. James R. Mann, R., Chicago, 55 to 59 Congresses.
3. Wm. W. Wilson, R., Chicago, 58, 59 Congresses.
4. Charles F. Wharton, R., Chicago, 59 Congress.
5. Arthur Michalek, R., Chicago, 59 Congress.
6. William Lorimer, R., Chicago, 58, 59 Congresses.
7. Philip Knopf, R., Chicago, 58, 59 Congresses.
8. Charles McGavin, R., Chicago, 59 Congress.
9. Henry S. Boutell, R., Chicago, 55 to 59 Congresses.
10. George Edmund Foss, R., Chicago, 54 to 59 Congresses.
11. Howard M. Snapp, R., Joliet, 58, 59 Congresses.
12. Charles E. Fuller, R., Belvidere, 58, 59 Congresses.
13. Robert R. Hitt, R., Mount Morris, 48 to 59 Congresses.
14. Benj. F. Marsh, R., Warsaw, 58, 59 Congresses.
15. George W. Prince, R., Galesburg, 54 to 59 Congresses.
16. Joseph V. Graff, R., Peoria, 54 to 59 Congresses.
17. John A. Sterling, R., Bloomington, 58, 59 Congresses.
18. Joseph G. Cannon, R., Danville, 43 to 59 Congresses (except 52).
19. Wm. B. McKinley, R., Champaign, 59 Congress.
20. Henry T. Rainey, D., Carrollton, 58, 59 Congresses.
21. Zeno J. Rives, R., Litchfield, 59 Congress.
22. Wm. A. Rodenberg, R., E. St. Louis, 58, 59 Congresses.
23. Frank L. Dickson, R., Ramsay, 59 Congress.
24. P. T. Chapman, R., Vienna, 59 Congress.
25. Geo. W. Smith, R., Murphysboro, 51 to 59 Congresses.

INDIANA.

1. James M. Hemenway, R., Booneville, 54 to 59 Congresses.
2. John C. Chaney, R., Sullivan, 59 Congress.
3. Wm. T. Zenor, D., Corydon, 55 to 59 Congresses.
4. Lincoln Dixon, D., N. Vernon, 59 Congress.
5. Elias S. Holiday, R., Brazil, 57 to 59 Congresses.
6. James E. Watson, R., Bushville, 54, 56 to 59 Congresses
7. Jesse Overstreet, R., Indianapolis, 55 to 59 Congresses.
8. George W. Cromer, R., Muncie, 56 to 59 Congresses.
9. Charles B. Landis, R., Delphi, 55 to 59 Congresses.
10. E. D. Crumpacker, R., Valparaiso, 55 to 59 Congresses.
11. Frederick Landis, R., Logansport, 58, 59 Congresses.
12. Newton W. Gilbert, R., Ft. Wayne, 59 Congress.
13. Abraham L. Brick, R., South Bend, 56 to 59 Congresses.

IOWA.

1. Thomas Hedge, R., Burlington, 56 to 59 Congresses.
2. Albert F. Dawson, R., Preston, 59 Congress.
3. Benj. P. Birdsall, R., Clarion, 58, 59 Congresses.
4. Gilbert N. Haugen, R., Northwood, 56 to 59 Congresses.
5. Robert G. Cousins, R., Tipton, 53 to 59 Congresses.
6. John F. Lacey, R., Oscaloosa, 53 to 59 Congresses.
7. John A. T. Hull, R., Des Moines, 52 to 59 Congresses.
8. Wm. P. Hepburn, R., Clarinda, 47 to 49, 53 to 59 Congresses.
9. Walter I. Smith, R., Council Bluffs, 57 to 59 Congresses.
10. James P. Conner, R., Denison, 56 to 59 Congresses.
11. E. H. Hubbard, R., Sioux City, 59 Congress.

KANSAS.

Charles F. Scott (at large), R., Iola, 57 to 59 Congresses.

1. Charles Curtis, R., Topeka, 56 to 59 Congresses.
2. Justin D. Bowersock, R., Lawrence, 56 to 59 Congresses.
3. Philip P. Campbell, R., Pittsburgh, 58, 59 Congresses.
4. James M. Miller, R., Council Grove, 56 to 59 Congresses.
5. W. A. Calderhead, R., Marysville, 54, 56 to 59 Congresses.
6. William A. Reeder, R., Logan, 56 to 59 Congresses.
7. Victor Murdock, R., Wichita, 58, 59 Congresses.

KENTUCKY.

1. Ollie M. James, D., Marion, 58, 59 Congresses.
2. Aug. O. Stanley, D., Henderson, 58, 59 Congresses.
3. James M. Richardson, D., Glasgow, 59 Congress.
4. David H. Smith, D. Hodgensville, 55 to 59 Congresses.
5. Swager Sherley, D., Louisville, 58, 59 Congresses.
6. Joseph L. Rhinock, D., Covington, 59 Congress.
7. South Trimble, D., Frankfort, 57 to 59 Congresses.
8. George G. Gilbert, D., Shelbyville, 56 to 59 Congresses.
9. James B. Bennett, D., Greenup, 59 Congress.
10. Frank A. Hopkins, D., Prestonburg, 58, 59 Congresses.
11. Don C. Edwards, R., Loudon, 59 Congress.

LOUISIANA.

1. Adolph Meyer, R., New Orleans, 52 to 59 Congresses.
2. Robert C. Davey, D., New Orleans, 53, 55 to 59 Congresses.
3. R. F. Broussard, D., New Iberia, 55 to 59 Congresses.
4. John T. Watkins, D., Minden, 59 Congress.
5. Joseph E. Ransdell, D., Lake Providence, 56 to 59 Congresses.
6. S. M. Robertson, D., Baton Rouge, 50 to 59 Congresses.
7. A. P. Pujo, D., Lake Charles, 58, 59 Congresses

MAINE.

1. Amos L. Allen, R., Alfred, 56 to 59 Congresses.
2. Charles E. Littlefield, R., Rockland, 56 to 59 Congresses.
3. Edwin C. Burleigh, R., Augusta, 55 to 59 Congresses.
4. Llewellyn Powers, R., Houlton, 45, 57 to 59 Congresses.

MARYLAND.

1. Thos. A. Smith, D., Ridgely, 59 Congress.
2. J. F. C. Talbott, D., Lutherville, 58, 59 Congresses.
3. Frank C. Wachter, R., Baltimore, 56 to 59 Congresses.
4. John Gill, Jr., D., Baltimore, 59 Congress.
5. Sidney E. Mudd, R., La Plata, 51, 55 to 59 Congresses.
6. George A. Pearre, R., Cumberland, 56 to 59 Congresses.

MASSACHUSETTS.

1. George P. Lawrence, R., North Adams, 55 to 59 Congresses.
2. Frederick H. Gillett, R., Springfield, 53 to 59 Congresses.
3. Rockwood Hoar, R., Worcester, 59 Congress.
4. Charles Q. Tirrell, R., Natick, 57 to 59 Congresses
5. Butler Ames, R., Lowell, 58, 59 Congresses.
6. Aug. P. Gardner, R., Hamilton, 58, 59 Congresses.
7. Ernest W. Roberts, R., Chelsea, 56 to 59 Congresses.
8. Samuel W. McCall, R., Winchester, 53 to 59 Congresses.
9. John A. Keliher, D., Boston, 58, 59 Congresses.
10. William S. McNary, D., Boston, 58, 59 Congresses.
11. John A. Sullivan, D., Boston, 58, 59 Congresses.
12. John W. Weeks, R., Newton, 59 Congress.
13. Wm. S. Greene, R., Fall River, 55 to 59 Congresses.
14. Wm. C. Lovering, R., Taunton, 55 to 59 Congresses.

MICHIGAN.

1. Edwin Denby, R., Detroit, 59 Congress.
2. Charles E. Townsend, R., Jackson, 58, 59 Congresses.
3. Washington Gardner, R., Albion, 56 to 59 Congresses.
4. Edward L. Hamilton, R., Niles, 55 to 59 Congresses.
5. William A. Smith, R., Grand Rapids, 54 to 59 Congresses.
6. Samuel W. Smith, R., Pontiac, 55 to 59 Congresses.
7. Henry McMorran, R., Port Huron, 58, 59 Congresses.
8. Joseph W. Fordney, R., Saginaw, 56 to 59 Congresses.
9. Roswell P. Bishop, R., Ludington, 54 to 59 Congresses.
10. George A. Loud, R., Au Sable, 58, 59 Congresses.
11. Archibald B. Darragh, R., St. Louis, 57 to 59 Congresses.
12. H. Olin Young, R., Ishpeming, 58, 59 Congresses.

MINNESOTA.

1. James A. Tawney, R., Winona, 53 to 59 Congresses.
2. James T. McCleary, R., Mankato, 53 to 59 Congresses.
3. Charles R. Davis, R., St. Peter, 58, 59 Congresses.
4. Fred. C. Stevens, R., St. Paul, 55 to 59 Congresses.
5. Loren Fletcher, R., Minneapolis, 59 Congress.
6. Charles B. Buckman, R., Little Falls, 58, 59 Congresses.
7. Andrew J. Volstead, R., Granite Falls, 58, 59 Congresses.
8. I. Adam Bede, R., Pine City, 58, 59 Congresses.
9. Halvor Steenerson, R., Crookston, 58, 59 Congresses.

MISSISSIPPI.

1. Ezekiel S. Candler, D., Corinth, 57 to 59 Congresses.
2. Thomas Spight, D., Ripley, 55 to 59 Congresses.
3. Benj. G. Humphreys, D., Greenville, 58, 59 Congresses.
4. Wilson S. Hill, D., Winona, 58, 59 Congresses.
5. Adam M. Byrd, D., Philadelphia, 58, 59 Congresses.
6. Eaton J. Bowers, D., Bay St. Louis, 58, 59 Congresses.
7. Frank A. McLain, D., Gloster, 55 to 59 Congresses.
8. John S. Williams, D., Yazoo City, 58, 59 Congresses.

MISSOURI.

1. James T. Lloyd, D., Shelbyville, 55 to 59 Congresses.
2. Wm. W. Rucker, D., Keytesville, 56 to 59 Congresses.
3. Frank B. Keppler, R., Kingston, 59 Congress.
4. Frank B. Fulkerson, R., St. Joseph, 59 Congress.
5. Edgar C. Ellis, R., Kansas City, 59 Congress.
6. D. A. DeArmond, D., Butler, 55 to 59 Congresses.
7. John Welborn, R., Lexington, 59 Congress.
8. D. H. Shackelford, D., Jefferson City, 56 to 59 Congresses.
9. Champ Clark, D., Bowling Green, 53, 55 to 59 Congresses.
10. Richard Bartholdt, R., St. Louis, 53 to 59 Congresses.
11. John T. Hunt, D., St. Louis, 58, 59 Congresses.
12. Ernest E. Wood, D., St. Louis, 59 Congress.
13. Marion E. Rhodes, R., Potosi, 59 Congress.
14. Wm. T. Tindall, R., Sparta, 59 Congress.
15. Cassius M. Shartel, R., Neosho, 59 Congress.
16. Arthur P. Murphy, R., Crocker, 59 Congress.

MONTANA.

Joseph M. Dixon (at large), R., Missoula, 58, 59 Congresses.

NEBRASKA.

1. Elmer J. Burkett, R., Lincoln, 56 to 59 Congresses.
2. J. L. Kennedy, R., Omaha, 59 Congress.
3. John J. McCarthy, R., Ponca, 58, 59 Congresses.
4. Edmund H. Hinshaw, R., Fairbury, 58, 59 Congresses.
5. George W. Norris, R., McCook, 58, 59 Congresses.
6. Moses P. Kinkaid, R., O'Neill, 58, 59 Congresses.

NEVADA.

Clarence D. Van Duzer (at large), D., Tonopah, 58, 59 Congresses.

NEW HAMPSHIRE.

1. Cyrus A. Sulloway, R., Manchester, 54 to 59 Congresses.
2. Frank D. Currier, R., Canaan, 57 to 59 Congresses.

NEW JERSEY.

1. H. C. Loudenslager, R., Paulsboro, 53 to 59 Congresses.
2. John J. Gardner, R., Atlantic City, 53 to 59 Congresses.
3. Benj. F. Howell, R., New Brunswick, 54 to 58 Congresses.
4. Ira W. Wood, R., Trenton, 59 Congress.
5. Charles N. Fowler, R., Elizabeth, 54 to 59 Congresses.
6. Henry C. Allen, R., Paterson, 59 Congress.
7. Richard W. Parker, R., Newark, 54 to 59 Congresses.
8. Wm. H. Wiley, R., East Orange, 58, 59 Congresses.
9. Marshall Van Winkle, R., Jersey City, 59 Congress.
10. Allan L. McDermott, D., Jersey City, 56 to 59 Congresses.

NEW YORK.

1. William W. Cocks, R., Old Westbury, 59 Congress.
2. George H. Lindsay, D., Brooklyn, 57 to 59 Congresses.
3. Charles T. Dunwell, R., Brooklyn, 57 to 59 Congresses.
4. Charles B. Law, R., Brooklyn, 59 Congress.
5. George E. Waldo, R., Brooklyn, 59 Congress.
6. William M. Calder, R., Brooklyn, 59 Congress.
7. John J. Fitzgerald, D., New York, 56 to 59 Congresses.
8. Timothy D. Sullivan, D., New York, 58, 59 Congresses.
9. Henry M. Goldfogle, D., New York, 57 to 59 Congresses.
10. William Sulzer, D., New York, 54 to 59 Congresses.
11. Wm. R. Hearst, D., New York, 58, 59 Congresses.
12. W. Burke Cockran, D., New York, 59 Congress.
13. Herbert Parsons, R., New York, 59 Congress.
14. Charles A. Towne, D., New York, 59 Congress.
15. J. Van V. Olcott, R., New York, 59 Congress.
16. Jacob Ruppert, Jr., D., New York, 56 to 59 Congresses.
17. William S. Bennet, R., New York, 59 Congress.
18. Joseph A. Goulden, D., New York, 58, 59 Congresses.
19. John E. Andrus, R., Yonkers, 59 Congress.
20. Thomas W. Bradley, R., Walden, 58, 59 Congresses.
21. John H. Ketcham, R., Dover Plains, 46 to 52, 55 to 59 Congresses.
22. William H. Draper, R., Troy, 57 to 59 Congresses.
23. George N. Southwick, R., Albany, 54, 55, 57 to 59 Congresses.
24. Frank J. Lefevre, R., New Paltz, 59 Congress.
25. Lucius N. Littauer, R., Gloversville, 55 to 59 Congresses.
26. William H. Flack, R., Malone, 58, 59 Congresses.
27. James S. Sherman, R., Utica, 50, 51, 53 to 59 Congresses.
28. Charles L. Knapp, R., Lowville, 57 to 59 Congresses.
29. Michael E. Driscoll, R., Syracuse, 56 to 59 Congresses.
30. John W. Dwight, R., Dryden, 58, 59 Congresses.
31. Sereno E. Payne, R., Auburn, 48, 49, 51 to 59 Congresses.
32. James B. Perkins, R., Rochester, 57 to 59 Congresses.
33. J. Sloat Fassett, R., Elmira, 59 Congress.
34. James W. Wardsworth, R., Geneseo, 47, 48, 52 to 59 Congresses.
35. William H. Ryan, D., Buffalo, 56 to 59 Congresses.
36. De Alva S. Alexander, R., Buffalo, 55 to 59 Congresses.
37. Edward B. Vreeland, R., Salamanca, 56 to 59 Congresses.

NORTH CAROLINA.

1. John H. Small, D., Washington, 56 to 59 Congresses.
2. Claude Kitchen, D., Scotland Neck, 57 to 59 Congresses.
3. Charles R. Thomas, D., Newbern, 56 to 59 Congresses.
4. Edward W. Pou, D., Smithfield, 57 to 59 Congresses.
5. William W. Kitchen, D., Roxboro, 55 to 59 Congresses.
6. Gilbert B. Patterson, D., Maxton, 58, 59 Congresses.
7. Robert N. Page, D., Biscoe, 58, 59 Congresses.
8. E. Spencer Blackburn, R., Wilksboro, 59 Congress.
9. Edwin Y. Webb, D., Shelby, 58, 59 Congresses.
10. James M. Gudger, Jr., D., Asheville, 58, 59 Congresses.

NORTH DAKOTA.

Thomas F. Marshall (at large), R., Oakes, 57 to 59 Congresses.
A. J. Gronna (at large), R., Lakota, 59 Congress.

OHIO.

1. Nicholas Longworth, R., Cincinnati, 58, 59 Congresses.
2. Herman P. Goebel, R., Cincinnati, 58, 59 Congresses.
3. Robert N. Nevin, R., Dayton, 56 to 59 Congresses.
4. Harvey C. Garber, D., Greenville, 58, 59 Congresses.
5. W. W. Campbell, R., Napoleon, 59 Congress.
6. T. E. Scroggy, R., Xenia, 59 Congress.
7. J. Warren Keifer, R., Springfield, 59 Congress.
8. Ralph D. Cole, R., Findlay, 59 Congress.
9. James H. Southard, R., Toledo, 54 to 59 Congresses.
10. Henry T. Bannon, R., Portsmouth, 54 to 59 Congresses.
11. Charles H. Grosvenor, R., Athens, 49 to 51, 53 to 58 Congresses.
12. E. L. Taylor, R., Columbus, 59 Congress.
13. G. E. Mouser, R., Marion, 59 Congress.
14. Amos R. Webber, R., Elyria, 59 Congress.
15. B. G. Dawes, R., Marietta, 59 Congress.
16. Campbell L. Weems, R., St. Clairsville, 58, 59 Congresses.
17. M. L. F. Smyser, R., Wooster, 59 Congress.
18. James Kennedy, R., Youngstown, 58, 59 Congresses.
19. W. Aubrey Thomas, R., Niles, 59 Congress.
20. Jacob A. Beidler, R., Willoughby, 57 to 59 Congresses.
21. Theodore E. Burton, Cleveland, 51, 54 to 59 Congresses.

OREGON.

1. Binger Hermann, R., Roseburg, 49 to 54, 58, 59 Congresses.
2. John N. Williamson, R., The Dalles, 58, 59 Congresses.

PENNSYLVANIA.

1. Henry H. Bingham, R., Philadelphia, 46 to 59 Congresses.
2. Robert Adams, Jr., R., Philadelphia, 53 to 59 Congresses.
3. George A. Castor, R., Philadelphia, 58, 59 Congresses.
4. Reuben O. Moon, R., Philadelphia, 58, 59 Congresses.
5. Edward de V. Morrell, R., Philadelphia, 56 to 59 Congresses.
6. George D. McCreary, R., Philadelphia, 58, 59 Congresses.
7. Thomas S. Butler, R., West Chester, 55 to 59 Congresses.
8. Irving P. Wanger, R., Norristown, 53 to 58 Congresses.
9. H. Burd Cassel, R., Marietta, 57 to 59 Congresses.
10. Thomas H. Dale, R., Scranton, 59 Congress.
11. Henry W. Palmer, R., Wilkes-Barre, 57 to 59 Congresses.
12. George R. Patterson, R., Ashland, 57 to 59 Congresses.
13. Marcus C. L. Kline, D., Allentown, 58 to 59 Congresses.
14. Mial E. Lilly, R., Towanda, 59 Congress.
15. Elias Deemer, R., Williamsport, 57 to 59 Congresses.
16. E. W. Samuels, R., Mount Carmel, 59 Congress.
17. Thaddeus M. Mahon, R., Chambersburg, 53 to 59 Congresses.
18. Martin E. Olmstead, R., Harrisburg, 55 to 59 Congresses.
19. John M. Reynolds, R., Bedford, 59 Congress.
20. Daniel F. Lefean, R., York, 58, 59 Congresses.
21. Solomon R. Dresser, R., Bradford, 58, 59 Congresses.
22. George F. Huff, R., Greensburg, 52, 54, 58, 59 Congresses.
23 Allen F. Cooper, R., Uniontown, 58, 59 Congresses.
24. Ernest F. Acheson, R., Washington, 54 to 59 Congresses.
25. Arthur L. Bates, R., Meadville, 57 to 59 Congresses.
26. G. A. Schneebeli, R., Nazareth, 59 Congress.
27. William O. Smith, R., Punxsutawney, 58, 59 Congresses.
28. Joseph C. Sibley, R., Franklin, 53, 56 to 59 Congresses.
29. Wm. H. Graham, R., Allegheny, 59 Congress.
30. John Dalzell, R., Pittsburg, 50 to 59 Congresses.
31. James F. Burke, R., Pittsburg, 59 Congress.
32. A. J. Burchfeld, R., Pittsburg, 59 Congress.

RHODE ISLAND.

1. Daniel L. D. Granger, D., Providence, 58, 59 Congresses.
2. Adin B. Capron, R., Smithfield, 55 to 59 Congresses.

SOUTH CAROLINA.

1. George S. Legare, D., Charleston, 58, 59 Congresses.
2. James O. Patterson, D., Barnwell, 59 Congress.
3. Wyatt Aiken, D., Abbeville, 58, 59 Congresses.
4. Joseph T. Johnson, D., Spartanburg, 57 to 59 Congresses.
5. David E. Finley, D., Yorkville, 56 to 59 Congresses.
6. J. Edward Ellerby, D., Sellers, 59 Congress.
7. Asbury F. Lever, D., Wallaceville, 57 to 59 Congresses.

SOUTH DAKOTA.

Charles H. Burke (at large), R., Pierre, 56 to 59 Congresses.
Eben W. Martin (at large), R., Deadwood, 57 to 59 Congresses.

TENNESSEE.

1. Walter P. Brownlow, R., Jonesboro, 55 to 59 Congresses.
2. Nathan W Hale, R., Knoxville, 59 Congress.
3. John A. Moon, D., Chattanooga, 55 to 59 Congresses.
4. M. G. Butler, D., Gainsboro, 59 Congress.
5. W. C. Houston, D., Woodbury, 59 Congress.
6. John W. Gaines, D., Nashville, 55 to 59 Congresses.
7. Lemuel P. Padgett, D., Columbia, 57 to 59 Congresses.
8. Thetus W. Sims, D., Linden, 55 to 59 Congresses.
9. Finis J. Garrett, D., Dresden, 59 Congress.
10. M. R. Patterson, D., Memphis, 57 to 59 Congresses.

TEXAS.

1. Morris Sheppard, D., Texarkana, 58, 59 Congresses.
2. M. L. Brocks, D., San Augustin, 59 Congress.
3. Gordon Russell, D., Tyler, 58, 59 Congresses.
4. Choice B. Randell, D., Sherman, 57 to 59 Congresses.
5. Jack Beall, D., Waxahachie, 58, 59 Congresses.
6. Scott Field, D., Calvert, 58, 59 Congresses.
7. Alexander W. Gregg, D., Palestine, 58, 59 Congresses.
8. John M. Pinckney, D., Hempstead, 59 Congress.
9. George F. Burgess, D., Gonzales, 57 to 59 Congresses.
10. Alfred S. Burleson, D., Austin, 56 to 59 Congresses.
11. Robert L. Henry, D., Waco, 55 to 59 Congresses.
12. Oscar W. Gillespie, D., Fort Worth, 58, 59 Congresses.
13. John H. Stephens, D., Vernon, 55 to 58 Congresses.
14. James L. Slayden, D., San Antonio, 55 to 59 Congresses.
15. John N. Garner, D., Uvalde, 58, 59 Congresses.
16. William R. Smith, D., Colorado, 58, 59 Congresses.

UTAH.

Joseph Howell (at large), R., Wellsville, 58, 59 Congresses.

VERMONT.

1. David J. Foster, R., Burlington, 57 to 59 Congresses.
2. Kittredge Haskins, R., Brattleboro, 57 to 59 Congresses.

VIRGINIA.

1. William A. Jones, D., Warsaw, 52 to 59 Congresses.
2. Harry L. Maynard, D., Portsmouth, 57 to 59 Congresses.
3. John Lamb, D., Richmond, 55 to 59 Congresses.
4. Robert G. Southall, D., Amelia, 58, 59 Congresses.
5. Claude A. Swanson, D., Chatham, 53 to 59 Congresses.
6. Carter Glass, D., Lynchburg, 58, 59 Congresses.
7. James Hay, D., Madison, 55 to 59 Congresses.
8. John F. Rixey, D., Brandy, 55 to 59 Congresses.
9. Campbell Slemp, D., Big Stone Gap, 58, 59 Congresses.
10. Henry D. Flood, D., W. Appomattox, 57 to 59 Congresses.

WASHINGTON.

Wesley L. Jones (at large), R., Yakima, 56 to 59 Congresses.
Francis W. Cushman (at large), R., Tacoma, 56 to 59 Congresses.
Wm. E. Humphrey (at large), R., Seattle, 58, 59 Congresses.

WEST VIRGINIA.

1. B. B. Dovener, R., Wheeling, 54 to 59 Congresses.
2. Alston G. Dayton, R., Philippi, 54 to 59 Congresses.
3. Joseph H. Gaines, R., Charleston, 57 to 59 Congresses.
4. Harry C. Woodyard, R., Spencer, 58, 59 Congresses.
5. James A. Hughes, R., Huntington, 57 to 59 Congresses.

WISCONSIN.

1. Henry A. Cooper, R., Racine, 53 to 59 Congresses.
2. Henry C. Adams, R., Madison, 58, 59 Congresses.
3. Joseph W. Babcock, R., Necedah, 53 to 59 Congresses.
4. Theobold Otjen, R., Milwaukee, 54 to 59 Congresses.
5. Wm. H. Stafford, R., Milwaukee, 58, 59 Congresses.
6. Charles H. Weisse, D. ,Sheboygan Falls, 59 Congress.
7. John J. Esch, R., La Crosse, 56 to 59 Congresses.
8. James H. Davidson, R., Oshkosh, 55 to 59 Congresses.
9. Edward S. Minor, R., Sturgeon Bay, 54 to 59 Congresses.
10. Webster E. Brown, R., Rhinelander, 57 to 59 Congresses.
11. John J. Jenkins, R., Chippewa Falls, 54 to 59 Congresses.

WYOMING.

1. Frank W. Mondell, R., Newcastle, 54, 56 to 59 Congresses.

TERRITORIAL DELEGATES.

Arizona—Marcus A. Smith, D., Tucson.
New Mexico—Wm. H. Andrews, R., Santa Fe.
Oklahoma—Bird S. McGuire, R., Pawnee.
Hawaii—Jonah Kalanianole, R., Honolulu.
Porto Rico—Julian Larrinega, San Juan.

UNITED STATES EMBASSIES AND LEGATIONS.

The United States is represented in the following foreign countries and capitals, and by the titles and numbers of officials submitted. It is further represented abroad by over one thousand consuls at the various mercantile cities and towns. Service through the agency of Embassies and Legations is called "diplomatic"; that through Consuls, "Consular."

COUNTRY.	CAPITAL, OR COURT.	TITLE OF REPRESENTATIVES.
Argentine Republic	Buenos Ayres	Envoy Extraordinary and Minister Plenipotentiary.
Austria-Hungary	Vienna	Ambas Extraordinary and Minister Plenipotentiary. Secretary of Legation. Naval Attaché. Military Attaché.
Belgium	Brussels	Envoy Extraordinary and Minister Plenipotentiary.
Bolivia	La Paz	Envoy Extraordinary and Minister Plenipotentiary.
Brazil	Rio de Janeiro	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Bulgaria	Constantinople	Agent and Consul-General.
Chili	Santiago	Envoy Extraordinary and Minister Plenipotentiary.
China	Pekin	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Second Secretary. Naval Attaché, Tokyo (Yedo). Military Attaché, Pekin. Chinese Secretary, Pekin.
Colombia	Bogota	Envoy Extraordinary and Minister Plenipotentiary.
Cuba	Habana	Envoy Extraordinary and Minister Plenipotentiary.
Costa Rica, Nicaragua	San Jose	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Denmark	Copenhagen	Envoy Extraordinary and Minister Plenipotentiary. Military Attaché.
Dominican Republic	Port au Prince	Chargé d'Affaires. . . .
Ecuador	Quito	Envoy Extraordinary and Minister Plenipotentiary.
Egypt	Cairo	Agent and Consul-General.
France	Paris	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Third Secretary of Embassy. Naval Attaché.
German Empire	Berlin	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Third Secretary of Embassy. Naval Attaché. Military Attaché.
Great Britain	London	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Third Secretary of Embassy. Naval Attaché. Military Attaché.
Greece, Roumania and Servia	Athens	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Guatemala and Honduras	Guatemala City	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation and Consul-General.
Haiti	Port au Prince	Envoy Extraordinary and Minister Plenipotentiary.
Italy	Rome	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Naval Attaché.
Japan	Tokyo	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Second Secretary of Legation. Naval Attaché. Military Attaché. Interpreter.
Korea	Seoul	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Military Attaché. Two Interpreters.
Liberia	Monrovia	Minister Resident and Consul-General. Secretary of Legation.
Mexico	Mexico	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Third Secretary of Embassy.
The Netherlands	The Hague	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Military Attaché.
Nicaragua and Salvador	San José	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Paraguay and Uruguay	Montevidio	Envoy Extraordinary and Minister Plenipotentiary.
Persia	Teheran	Envoy Extraordinary and Minister Plenipotentiary.
Peru	Lima	Envoy Extraordinary and Minister Plenipotentiary.
Portugal	Lisbon	Envoy Extraordinary and Minister Plenipotentiary.
Russia	St. Petersburg	Ambassador Extraordinary and Plenipotentiary. Secretary of Embassy. Second Secretary of Embassy. Naval Attaché. Military Attaché.

L. OF C.

UNITED STATES EMBASSIES AND LEGATIONS—(Continued).

COUNTRY.	CAPITAL, OR COURT.	TITLE OF REPRESENTATIVES.
Siam	Bangkok	Envoy Extraordinary and Minister Plenipotentiary. Interpreter.
Spain	Madrid	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Sweden and Norway	Stockholm	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation.
Switzerland	Berne	Envoy Extraordinary and Minister Plenipotentiary.
Turkey	Constantinople	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Second Secretary of Legation. Interpreter.
Venezuela	Caracas	Envoy Extraordinary and Minister Plenipotentiary. Secretary of Legation. Naval Attaché.

CONGRESSIONAL COMMITTEES.

U. S. SENATE—STANDING AND SELECT COMMITTEES.

Additional Accommodation for Library (Select).
Agriculture and Forestry.
Appropriations.
Coast and Insular Survey.
Condition of Potomac (Select).
Contingent Expenses of Senate.
Census.
Civil Service and Retrenchment.
Claims.
Coast Defences.
Commerce.
Corporations in D. C.
District of Columbia.
Education and Labor.
Engrossed Bills.
Enrolled Bills.
Establish U. S. University.
Examine Civil Service.
Finance.
Fisheries.
Five Civilized Tribes (Select).
Foreign Relations.
Forest Reservations and Game.
Geological Survey.
Immigration.
Improvement of the Mississippi.
Indian Affairs.
Indian Depredations.
Interoceanic Canal.
Interstate Commerce.
Investigate Indian Land Trespasses.
Industrial Exposition (Select).
Irrigation and Reclamation.
Judiciary.
Library.
Manufactures.
Military Affairs.
Mines and Mining.
National Banks (Select).
Naval Affairs.
Organization of Executive Department.
Pacific Islands and Porto Rico.
Pacific Railroads.
Patents.
Pensions.
Philippines.
Post-Offices and Post-Roads.
Printing.
Private Land Claims.
Privileges and Elections.
Public Buildings and Grounds.
Public Health and Quarantine.
Public Lands.
Railroads.
Relations with Canada.
Relations with Cuba.
Revision of Laws.
Revolutionary Claims.
Rules.
Territories.
Transportation Routes.
Transportation of Meats (Select).
Standards, Weights and Measures (Select).
Woman's Suffrage (Select).

STANDING AND SELECT COMMITTEES OF THE HOUSE.

Accounts.
Agriculture.
Alcoholic Liquor Traffic.
Appointment of Employes (Select).
Appropriations.
Banking and Currency.
Census (Select).
Claims.
Coinage, Weights and Measures.
District of Columbia.
Education.
Election of President, etc.
Elections No. 1.
Elections No. 2.
Elections No. 3.
Enrolled Bills.
Examination of Document (Select)
Expenditures of Agricultural Department.
Expenditures of Department of Justice.
Expenditures of Interior Department.
Expenditures in Navy Department.
Expenditures in Post-Office Department.
Expenditures in State Department
Expenditures in Treasury Department.
Expenditures in War Department.
Expenditures on Public Buildings.
Foreign Affairs.
Immigration and Naturalization.
Indian Affairs.
Industrial Arts, etc. (Select).
Insular Affairs.
Interstate and Foreign Commerce.
Invalid Pensions.
Irrigation of Arid Lands.
Judiciary.
Labor.
Levees of Mississippi River.
Library.
Manufactures.
Merchant Marine.
Mileage.
Military Affairs.
Militia.
Mines and Mining.
Naval Affairs.
Pacific Railroads.
Patents.
Pensions.
Post-Offices and Post-Roads.
Printing.
Private Land Claims.
Public Buildings and Grounds.
Public Lands.
Railways and Canals.
Reform in Civil Service.
Revision of Laws.
Rivers and Harbors.
Rules.
Territories.
Ventilation and Acoustics.
War Claims.
Ways and Means.

THE ELECTORAL COLLEGE.

BASED ON THE NEW APPORTIONMENT UNDER CENSUS OF 1900.

STATE.	Electoral Vote	STATE.	Electoral Vote.	STATE.	Electoral Vote
Alabama	11	Maryland	8	Pennsylvania	34
Arkansas	9	Massachusetts	16	Rhode Island	4
California	10	Michigan	14	South Carolina	9
Colorado	5	Minnesota	11	South Dakota	4
Connecticut	7	Mississippi	10	Tennessee	12
Delaware	3	Missouri	18	Texas	18
Florida	5	Montana	3	Utah	3
Georgia	13	Nebraska	8	Vermont	4
Idaho	3	Nevada	3	Virginia	12
Illinois	27	New Hampshire	4	Washington	5
Indiana	15	New Jersey	12	West Virginia	7
Iowa	13	New York	39	Wisconsin	13
Kansas	10	North Carolina	12	Wyoming	3
Kentucky	13	North Dakota	4		
Louisiana	10	Ohio	23	Total	476
Maine	6	Oregon	4	Necessary to choice	239

Civil Service Machinery.

Object.—The object of the Civil Service Act is to improve the Civil Service of the United States by the appointment of a commission, consisting of three persons, which shall aid the President in preparing rules for carrying the Act into effect, and which shall make regulations to govern all examinations under the Act, and which shall investigate and report upon all matters relating to the enforcement of the Act and of the rules and regulations under it.

What the Civil Service Is.—The Civil Service of the United States embraces all the departments of Government under executive control, not including the Army and Navy. This is its broad sense. The Civil Service as referred to in the above Act embraces all the help of a minor or clerical kind necessary to enable the heads of departments to administer their functions. These all belong to the executive branch of the Government and they number in all some 236,000 incumbents.

Classification.—In establishing its rules and regulations the Civil Service Commission has divided these incumbents into classes. Some 109,000 of them rank as classified, that is, brought under the control of the Commission, and subject to examination as to competency. Their positions are competitive. About 12,500 are classified, but not subject to competitive examination. The remainder, some 114,500 are unclassified, and therefore not subject to competitive examination. Among these are over 72,000 fourth-class postmasters.

Civil Service Branches.—The Commission has further divided the Executive Civil Service of the United States into branches:

1. The Department Service.
2. The Customs Service.
3. The Post Office Service.
4. The Government Printing Service.
5. The Internal Revenue Service.

In general, the competitive examination for incumbents belonging to the classified service employed in the above branches applies to those above the rank of laborers and below those whose appointment must necessarily be confirmed by the Senate. Private secretaries and confidential clerks are an exception.

Applicants.—The Commission operates at Washington for selections for the department service, and through local boards of examiners for the other four branches. Applicants must apply for application blanks at these respective sources, and after being filled out must be returned to them. Applicants must be citizens of the United States, of proper age, not addicted to intoxicants. There is no discrimination on account of sex, color, polities or religion. The age varies with the different kinds of service, but there is an exception in favor of soldiers discharged for wounds or disability.

Examinations.—Applicants are examined as to their fitness for the positions sought, the examinations relating as nearly as possible to the duties to be performed. Examinations are held twice a year in every State and Territory at fixed times and places. When the examiners have ascertained the efficiency of an applicant, and the same ranks as 70 per centum of complete proficiency, he or she is given a certificate to that effect, and the name is certified to the appropriate register for registration in the order of proficiency ascertained.

Appointments.—When a vacancy occurs that is not to be filled by promotion under the rules, it must be filled by selection from the eligibles of highest grade on the appropriate registry. All appointments are made for a probationary period of six months. When there are no eligibles on the list, temporary appointments are made without examination, until an eligible is provided under the rules.

Soldiers.—Preferences are given under Civil Service rules to persons who have served in the military or naval service of the United States, and have been discharged for wounds or sickness incurred in the line of duty. They are eligible for appointment at a grade of 65, are exempt from a maximum age limitation, and are certified to the appointing officers prior to all others.

Removals.—The rules prescribe that no person in the Executive Civil Service shall be discharged, or his or her rank or compensation be changed, because of politics or religion. Neither shall any removal be made except for just cause upon written charges, of which the accused shall have notice and a chance for defence. No person in the Executive Civil Service shall use his position for political effect. All persons in the service of the United States are forbidden to levy upon or collect from appointees under the Civil Service contributions for political purposes, or to discriminate against such appointees who decline to make such contributions or to render political service.

The Declaration of Independence.

Adopted by Congress, July 4, 1776.

When, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness; that, to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that, whenever any form of government becomes destructive of these ends, it is the right of the people to alter or abolish it, and to institute a new government, laying its foundation on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and, accordingly, all experience hath shown that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such a government, and to provide new guards for their future security. Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these States. To prove this, let facts be submitted to a candid world:—

He has refused his assent to laws the most wholesome and necessary for the public good.

He has forbidden his governors to pass laws of immediate and pressing importance, unless suspended in their operations, till his assent should be obtained; and, when so suspended, he has utterly neglected to attend to them.

He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of representation in the legislature; a right inestimable to them, and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the repository of their public records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved representative houses repeatedly for opposing, with manly firmness, his invasions on the rights of the people.

He has refused, for a long time after such dissolutions, to cause others to be elected; whereby the legislative powers, incapable of annihilation, have returned to the people at large, for their exercise; the State remaining, in the meantime, exposed to all the dangers of invasions from without, and convulsions within.

He has endeavored to prevent the population of these States; for that purpose obstructing the laws of the naturalization of foreigners; refusing to pass others to encourage their migration hither, and raising the conditions of new appropriations of lands.

He has obstructed the administration of justice by refusing his assent to laws for establishing judiciary powers.

He has made judges dependent on his will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of new offices, and sent hither swarms of officers, to harass our people, and eat out their substance.

He has kept among us, in times of peace, standing armies, without the consent of our legislatures.

He has affected to render the military independent of, and superior to, the civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his assent to their acts of pretended legislation:

For quartering large bodies of armed troops among us;

For protecting them, by mock trial, from punishment for any murders which they should commit on the inhabitants of these States;

For cutting off our trade with all parts of the world;

For imposing taxes on us without our consent;

For depriving us, in many cases, of the benefits of trial by jury;

For transporting us beyond seas to be tried for pretended offenses;

For abolishing the free system of English laws in a neighboring province, establishing therein an arbitrary government, and enlarging its boundaries, so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies;

For taking away our charters, abolishing our most valuable laws, and altering, fundamentally, the powers of our governments;

For suspending our own legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated government here, by declaring us out of his protection, and waging war against us.

He has plundered our seas, ravaged our coasts, burned our towns, and destroyed the lives of our people.

He is at this time transporting large armies of foreign mercenaries to complete the works of death, desolation, and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilized nation.

He has constrained our fellow-citizens, taken captive on the high seas, to bear arms against their country, to become the executioners of their friends and brethren, or to fall themselves by their hands.

He has excited domestic insurrections amongst us, and has endeavored to bring on the inhabitants of our frontiers, the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes, and conditions.

In every stage of these oppressions, we have petitioned for redress in the most humble terms; our repeated petitions have been answered by repeated injury. A prince whose character is thus marked by every act which may define a tyrant, is unfit to be the ruler of a free people.

Nor have we been wanting in attentions to our British brethren. We have warned them, from time to time, of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them, by the ties of our common kindred, to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They, too, have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in necessity, which denounces our separation, and hold them as we hold the rest of mankind, enemies in war; in peace, friends.

We, therefore, the representatives of the UNITED STATES OF AMERICA in general congress assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the name and by the authority of the good people of these Colonies, solemnly publish and declare, that these United Colonies are, and of right ought to be, *Free* and *Independent States;* that they are absolved from all allegiance to the British Crown, and that all political connection between them and the State of Great Britain is, and ought to be, totally dissolved; and that, as *Free* and *Independent States,* they have full power to levy war, conclude peace, contract alliances, establish commerce, and do all other acts and things which *Independent States* may of right do. And for the support of this Declaration, with a firm reliance on the protection of DIVINE PROVIDENCE, we mutually pledge to each other our lives, our fortunes, and our sacred honor.

JOHN HANCOCK.

NEW HAMPSHIRE.—Josiah Bartlett, William Whipple, Matthew Thornton.

MASSACHUSETTS BAY.—Samuel Adams, John Adams, Robert Treat Paine, Elbridge Gerry.

RHODE ISLAND, ETC.—Stephen Hopkins, William Ellery.

CONNECTICUT.—Roger Sherman, Samuel Huntington, William Williams, Oliver Wolcott.

NEW YORK.—William Floyd, Philip Livingston, Francis Lewis, Lewis Morris.

NEW JERSEY.—Richard Stockton, John Witherspoon, Francis Hopkinson, John Hart, Abraham Clark.

PENNSYLVANIA.—Robert Morris, Benjamin Rush, Benjamin Franklin, John Morton, George Clymer, James Smith, George Taylor, James Wilson, George Ross.

DELAWARE.—Cæsar Rodney, George Read, Thomas M'Kean.

MARYLAND.—Samuel Chase, William Paca, Thomas Stone, Charles Carroll of Carrollton.

VIRGINIA.—George Wythe, Richard Henry Lee, Thomas Jefferson, Benjamin Harrison, Thomas Nelson, Jr., Francis Lightfoot Lee, Carter Braxton.

NORTH CAROLINA.—William Hooper, Joseph Hewes, John Penn.

SOUTH CAROLINA.—Edward Rutledge, Thomas Hayward, Jr., Thomas Lynch, Jr., Arthur Middleton.

GEORGIA.—Button Gwinnett, Lyman Hall, George Walton.

Constitution of the United States.

Ratification.—The ratification of the Constitution took place in the following order of States and by the vote shown: Delaware, December 7, 1787, unanimously; Pennsylvania, December 12, 1787, 46 to 23; New Jersey, December 18, 1787, unanimously; Georgia, January 2, 1788, unanimously; Connecticut, January 9, 1788, 128 to 40; Massachusetts, February 6, 1788, 187 to 168; Maryland, April 28, 1788, 63 to 12; South Carolina, May 23, 1788, 149 to 73; New Hampshire, June 21, 1788, 57 to 46; Virginia, June 25, 1788, 89 to 79; New York, July 26, 1788, 30 to 28; North Carolina, November 21, 1789, 193 to 75; Rhode Island, May 29, 1790, 34 to 32.

Ratification of Amendments.—Amendments I to X were declared to be in force, December 15, 1791.

Amendment XI was declared in force January 8, 1798.

Amendment XII, regulating elections, was declared in force September 28, 1804. It was not ratified by the States of Connecticut, Delaware, Massachusetts and New Hampshire.

Amendment XIII (emancipation) was proclaimed in force December 18, 1865. It was conditionally ratified by Alabama and Mississippi, not acted on by Texas, and rejected by Delaware and Kentucky. Thirty-one of the thirty-six States ratified it.

Amendment XIV (reconstruction) was proclaimed in force July 28, 1868. It was rejected by Delaware, Maryland, Kentucky and ten Southern States, but these ten States subsequently ratified it as a condition of re-entering the Union.

Amendment XV (negro citizenship) was proclaimed in force March 30, 1870. It was ratified by thirty States, was not acted on by Tennessee, and was rejected by California, Delaware, Kentucky, Maryland, New Jersey, and Oregon. New York withdrew her ratification January 5, 1870.

TEXT OF THE CONSTITUTION.

Preamble.—We, the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this CONSTITUTION for the United States of America.

Article I.

Legislative Power.—SECTION I. All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

House of Representatives.—SECTION II. 1. The House of Representatives shall be composed of members chosen every second year by the people of the several States, and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislature.

Qualifications of Representatives.—2. No person shall be a Representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

Apportionment.—3. Representatives and direct taxes shall be apportioned among the several States which may be included within this Union according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every thirty thousand, but each State shall have at least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose 3; Massachusetts, 8; Rhode Island and Providence Plantations, 1; Connecticut, 5; New York, 6; New Jersey, 4; Pennsylvania, 8; Delaware, 1; Maryland, 6; Virginia, 10; North Carolina, 5; South Carolina, 5, and Georgia, 3.[1]

Filling Vacancies.—4. When vacancies happen in the representation from any State, the Executive authority thereof shall issue writs of election to fill such vacancies.

Appointment of Officers.—5. The House of Representatives shall choose their Speaker and other officers, and shall have the sole power of impeachment.

Senate.—SECTION III. 1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six years; and each Senator shall have one vote.

Classification of Senators.—2. Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes: The seats of the Senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation, or otherwise, during the recess of the Legislature of any State, the Executive thereof may make temporary appointment until the next meeting of the Legislature, which shall then fill such vacancies.

Qualifications of Senators.—3. No person shall be a Senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States and who shall not, when elected, be an inhabitant of that State for which he shall be chosen.

President of the Senate.—4. The Vice-President of the United States shall be President of the Senate, but shall have no vote unless they be equally divided.

5. The Senate shall choose their other officers, and also a President pro tempore, in the absence of the Vice-President, or when he shall exercise the office of President of the United States.

Senate an Impeachment Court.—6. The Senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the President of the United States is tried, the Chief Justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

Judgment in Case of Conviction.—7. Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law.

Elections of Senators and Representatives.—SECTION IV. 1. The times, places, and manner of holding elections for Senators and Representatives shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by law make or alter such regulations, except as to places of choosing Senators.

Meeting of Congress.—2. The Congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

Organization of Congress.—SECTION V. 1. Each House shall be the judge of the elections, returns, and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members in such manner and under such penalties as each House may provide.

Rules of Procedure.—2. Each House may determine the rules of its proceedings, punish its members for disorderly behavior, and with the concurrence of two-thirds expel a member.

Journals of Each House.—3. Each House shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may in their judgment require secrecy; and the yeas and nays of the members of either House on any question shall, at the desire of one-fifth of those present, be entered on the journal.

Adjournment.—4. Neither House, during the session of Congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two Houses shall be sitting.

Pay and Privileges.—SECTION VI. 1. The Senators and Representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the Treasury of the United States. They shall in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the session of their respective Houses, and in going to and returning from the same, and for any speech or debate in either House they shall not be questioned in any other place.

---

*See Article XIV, Amendments.

Other Offices Prohibited.—2. No Senator or Representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States shall be a member of either House during his continuance in office.

Revenue Bills.—Section VII. 1. All bills for raising revenue shall originate in the House of Representatives, but the Senate may propose or concur with amendments, as on other bills.

How Bills Become Laws.—2. Every bill which shall have passed the House of Representatives and the Senate shall, before it become a law, be presented to the President of the United States, if he approve, he shall sign it, but if not, he shall return it, with his objections, to that House in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If after such reconsideration two-thirds of that House shall agree to pass the bill, it shall be sent, together with the objections, to the other House, by which it shall likewise be reconsidered; and if approved by two-thirds of that House it shall become a law. But in all such cases the votes of both Houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each House respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law in like manner as if he had signed it, unless the Congress by their adjournment prevent its return; in which case it shall not be a law.

President's Approval or Veto.—3. Every order, resolution, or vote to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States, and before the same shall take effect shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and the House of Representatives, according to the rules and limitations prescribed in the case of a bill.

Powers Vested in Congress.—Section VIII. 1. The Congress shall have power

To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defence and general welfare of the United States, but all duties, imposts, and excises shall be uniform throughout the United States.

2. To borrow money on the credit of the United States.

3. To regulate commerce with foreign nations, and among the several States, and with the Indian tribes.

4. To establish an uniform rule of naturalization and uniform laws on the subject of bankruptcies throughout the United States.

5. To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

6. To provide for the punishment of counterfeiting the securities and current coin of the United States.

7. To establish post-offices and post-roads.

8. To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive rights to their respective writings and discoveries.

9. To constitute tribunals inferior to the Supreme Court.

10. To define and punish piracies and felonies committed on the high seas, and offences against the law of nations.

11. To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water.

12. To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years.

13. To provide and maintain a navy.

14. To make rules for the government and regulation of the land and naval forces.

15. To provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions.

16. To provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States respectively the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress.

17. To exercise exclusive legislation in all cases whatsoever over such district (not exceeding ten miles square) as may, by cession of particular States and the acceptance of Congress, become the seat of Government of the United States, and to exercise like authority over all places purchased by the consent of the Legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dry-docks, and other needful buildings.

18. To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the Government of the United States, or in any department or officer thereof.

Admission of Immigrants.—Section IX. 1. The migration or importation of such persons as any of the States now existing shall think proper to admit shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

Habeas Corpus.—2. The privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion or invasion the public safety may require it.

Attainder.—3. No bill of attainder or ex post facto law shall be passed.

Direct Taxes.—4. No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration hereinbefore directed to be taken.

Customs Duties.—5. No tax or duty shall be laid on articles exported from any State.

6. No preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another, nor shall vessels bound to or from one State be obliged to enter, clear, or pay duties in another.

Drawing Moneys.—7. No money shall be drawn from the Treasury but in consequence of appropriations made by law, and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

Titles of Nobility Prohibited.—8. No title of nobility shall be granted by the United States. And no person holding any office of profit or trust under them shall, without consent of the Congress, accept of any present, emolument, office, or title of any kind whatever from any king, prince, or foreign State.

Powers of States.—Section X. 1. No State shall enter into any treaty, alliance, or confederation, grant letters of marque and reprisal, coin money, emit bills of credit, make anything but gold and silver coin a tender in payment of debts, pass any bill of attainder, ex post facto law, or law impairing the obligation of contracts, or grant any title of nobility.

2. No State shall, without the consent of the Congress, lay any impost or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws, and the net produce of all duties and imposts, laid by any State on imports or exports, shall be for the use of the Treasury of the United States, and all such laws shall be subject to the revision and control of the Congress.

3. No State shall, without the consent of Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

Vesting of Executive Power.—Section I. 1. The Executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years, and, together with the Vice-President, chosen for the same term, be elected as follows:

Electors.—2. Each State shall appoint in such manner as the Legislature thereof may direct, a number of electors, equal to the whole number of Senators and Representatives to which the State may be entitled in the Congress; but no Senator or Representative or person holding an office of trust or profit under the United States shall be appointed an elector.

Proceedings of Electors and House.—3. [The electors shall meet in their respective States and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons voted for, and of the number of votes for each, which list they shall sign and certify and transmit, sealed, to the seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the President, if such number be a majority of the whole number of electors appointed, and if there be more than one who have such majority, and have an equal number of votes, then the House of Representatives shall immediately choose by ballot one of them for President; and if no person have a majority, then from the five highest on the list the said House shall in like manner choose the President. But in choosing the President, the vote shall be taken by States, the representation from each State having one vote. A quorum, for this purpose, shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes of the electors shall be the Vice-President. But if there should remain two or more who have equal votes, the Senate shall choose from them by ballot the Vice-President.]*

Time of Choosing Electors.—4. The Congress may determine the time of choosing the electors and the day on which they shall give their votes, which day shall be the same throughout the United States.

Qualifications of the President.—5. No person except a natural born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained to the age of thirty-five years and been fourteen years a resident within the United States.

Provision for Disability.—6. In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice-President, and the Congress may by law provide for the case of removal, death, resignation, or inability, both of the President and Vice-President, declaring what officer shall then act as President, and such officer shall act accordingly until the disability be removed or a President shall be elected.

Salary of the President.—7. The President shall, at stated times, receive for his services a compensation, which shall neither be increased nor diminished during the period for which he shall have been elected, and he shall not receive within that period any other emolument from the United States, or any of them.

Oath of the President.—8. Before he enter on the execution of his office he shall take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the Constitution of the United States."

Duties of the President.—Section II. 1. The President shall be Commander-in-Chief of the Army and Navy of the United States, and of the militia of the several States when called into the actual service of the United States; he may require the opinion, in writing, of the principal officer in each of the executive departments upon any subject relating to the duties of their respective offices, and he shall have power to grant reprieves and pardons for offences against the United States except in cases of impeachment.

May Make Treaties, Etc.—2. He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the Senators present concur; and he shall nominate, and by and with the advice and consent of the Senate shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law; but the Congress may by law vest the appointment of such inferior officers as they think proper in the President alone, in the courts of law, or in the heads of departments.

May Fill Vacancies.—3. The President shall have power to fill up all vacancies that may happen during the recess of the Senate by granting commissions, which shall expire at the end of their next session.

May Advise Congress.—Section III. He shall from time to time give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient; he may, on extraordinary occasions, convene both Houses, or either of them, and in case of disagreement between them with respect to the time of adjournment, he may adjourn them to such time as he shall think proper; he shall receive ambassadors and other public ministers; he shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

Removal of Officers.—Section IV. The President, Vice-President, and all civil officers of the United States shall be removed from office on impeachment for and conviction of treason, bribery, or other high crimes or misdemeanors.

Article III.

Judicial Power, How Invested.—Section I. The judicial power of the United States shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The judges, both of the Supreme and inferior courts, shall hold their offices during good behavior, and shall at stated times receive for their services a compensation which shall not be diminished during their continuance in office.

To What it Extends.—Section II. 1. The judicial power shall extend to all cases in law and equity arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers, and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more States, between a State and citizens of another State, between citizens of different States, between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign States, citizens, or subjects.

Jurisdiction of Supreme Court.—2. In all cases affecting ambassadors, other public ministers, and consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before mentioned the Supreme Court shall have appellate jurisdiction both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

Trial Rules.—3. The trial of all crimes, except in cases of impeachment, shall be by jury, and such trial shall be held in the State where the said crimes shall have been committed; but when not committed within any State the trial shall be at such place or places as the Congress may by law have directed.

Treason Defined.—Section III. 1. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

Treason Punished.—2. The Congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood or forfeiture except during the life of the person attained.

Article IV.

State Records.—Section I. Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State. And the Congress may by general laws prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

Privileges of Citizens.—Section II. 1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

Executive Requisitions.—2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall, on demand of the Executive authority of the State from which he fled, be delivered up, to be removed to the State having jurisdiction of the crime.

Labor Regulations.—3. No person held to service or labor in one State, under the laws thereof, escaping into another shall in consequence of any law or regulation therein, be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due.

Admission of States.—Section III. 1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State, nor any State be formed by the junction of two or more States, or parts of States, without the consent of the Legislatures of the States concerned, as well as of the Congress.

Public Lands.—2. The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State.

Republican Government Guaranteed.—Section IV. The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion, and, on application of the Legislature, or of the Executive (when the Legislature cannot be convened), against domestic violence.

Article V.

Constitution, How Amended.—The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this Constitution, or, on the application of the Legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress; provided that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the Ninth Section of the First Article: and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

---

*This clause is superseded by Article XII, Amendments.

Article VI.

Validity of Debts.—1. All debts contracted and engagements entered into before the adoption of this Constitution shall be as valid against the United States under this Constitution as under the Confederation.

The Supreme Law.—2. This Constitution and the laws of the United States which shall be made in pursuance thereof and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land, and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

Oaths of Office.—3. The Senators and Representatives before mentioned, and the members of the several State Legislatures, and all executive and judicial officers, both of the United States and of the several States, shall be bound by oath or affirmation to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

Article VII.

Ratification of Constitution.—The ratification of the Conventions of nine States shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

AMENDMENTS TO THE CONSTITUTION.

Article I.

Religion and Free Speech.—Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Article II.

Right to Bear Arms.—A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

Article III.

Soldiers in Time of Peace.—No soldier shall in time of peace, be quartered in any house without the consent of the owner, nor in time of war but in a manner to be prescribed by law.

Article IV.

Right of Search.—The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Article V.

Capital Crimes and Arrest.—No person shall be held to answer for a capital or other infamous crime unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service, in time of war or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.

Article VI.

Right to Speedy Trial.—In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defence.

Article VII.

Trial by Jury.—In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall be otherwise re-examined in any court of the United States than according to the rules of the common law.

Article VIII.

Excessive Bail.—Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

Article IX.

Enumeration of Rights.—The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

Article X.

Reserved Rights of States.—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Article XI.

Judicial Power.—The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States, by citizens of another State, or by citizens or subjects of any foreign State.

Article XII.

Electors in Presidential Elections.—The electors shall meet in their respective States, and vote by ballot for President and Vice-President, one of whom at least shall not be an inhabitant of the same State with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President; and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which list they shall sign and certify, and transmit, sealed, to the seat of Government of the United States, directed to the President of the Senate; the President of the Senate, shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted; the person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President, whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President shall be the Vice-President, if such number be a majority of the whole number of electors appointed, and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

Article XIII.

Slavery Prohibited.—1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power to enforce this article by appropriate legislation.

Article XIV.

Protection of Citizens.—1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the

United States; nor shall any State deprive any person of life, liberty, or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

Appointment of Representatives.—2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the executive and judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male members of such State, being of twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Rebellion Against the United States.—3. No person shall be a Senator or Representative in Congress, or elector of President and Vice-President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State Legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid and comfort to the enemies thereof. But Congress may, by a vote of two-thirds of each House, remove such disability.

The Public Debt.—4. The validity of the public debt of the United States authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection and rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

5. The Congress shall have power to enforce by appropriate legislation the provisions of this article.

ARTICLE XV.

Right of Suffrage.—1. The right of the citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

2. The Congress shall have power to enforce the provisions of this article by appropriate legislation.

THE MAKING OF THE CONSTITUTION.

Articles of Confederation.—These were in reality the first Constitution of the United States. They were framed by the Continental Congress, and adopted by it November 15, 1777, the full title being "Articles of Confederation and Perpetual Union." Ratification by all the States was not secured until March 1, 1781, when the Articles went into effect.

Defects of the Articles.—They proved defective in that they did not confer sufficient power on Congress, and could not be amended except with the consent of all the States.

Convention of 1787.—This Convention was an out-crop of one, comprised of delegates from several States, voluntarily assembled at Annapolis, Md., in September, 1786, to consider trade regulations between the States. It found such regulations impracticable under the existing Articles of Confederation, and called another and fuller convention, to be composed of delegates from all the States, at Philadelphia, for the next year (1787).

Convention Proceedings.—By May 25, delegates from seven States had assembled, and on May 29, Edmund Randolph, of Virginia, presented a plan for "a more energetic government." By June 2, delegates from eleven States were present. Subsequently all of the original thirteen States were represented, except Rhode Island. After the presentation of various other plans for a constitution, and lengthy debate, the conclusion was reached that a new national government ought to be established.

Compromises.—Then came the time to harmonize the conflicting plans submitted, and evolve something satisfactory. This occupied the time of the Convention until July 24, when a committee of detail was appointed. This committee reported, August 6, a draft of a constitution closely resembling the present one. It was debated for a month, the main contention being over the slavery clause, the regulation of commerce and taxation of exports, and the representation of States in Senate and House. At length compromises were reached, and the instrument was submitted to a committee on style, which reported to the Convention on September 13. The instrument they reported underwent but little change in the Convention, and was adopted in time for the Convention to adjourn on September 17, after submitting its work to the Congress for transmission to the States.

Composition of the Convention.—This Convention was composed of very able and somewhat conservative men, and its deliberations were marked with moderation and wisdom. In the debates the lines of cleavage between States' rights and a strong central government were sharply drawn. This remained true in the respective State conventions for ratification, and it has continued ever since in general politics. Out of the 73 delegates chosen to represent the States in this Convention, 18 did not attend, and of the 55 in attendance only 39 signed the constitution as adopted.

Comparison.—The new or second Constitution contrasted favorably with the Articles of Confederation in that it was addressed more to individuals than States, provided an efficient executive, gave the central government coercive powers, and was susceptible of easier amendment. Since its ratification by the States it has been much expanded by amendments, by custom and by interpretation—more, probably, by the latter agency than any other.

COMPENDIUM OF
Parliamentary Law

Rules of Order for Deliberative Business

AFTER CUSHING'S MANUAL AND CONGRESSIONAL PROCEDURE

Popular Meetings and Societies

THEIR ORGANIZATION AND MANAGEMENT

HOW TO BECOME A LEADER IN YOUR COMMUNITY

A COMPLETE CODE

OF

Parliamentary Procedure

The Secret of Motions and Assembly Work.
Mastery in Debate. Comfort in
Legislation. Art of Leadership in a Community

It Embraces Among Other Subjects

- The Presentation of Legislative Business
- How to Obtain the Floor
- How to Make Motions
- General Classes of Motions
- Subordinate Motions
- The Main Question
- Character of all Motions
- Precedence and Effect of Motions
- Questions of Order
- Reading of Papers
- The Previous Question
- Motions to Postpone and Reconsider
- Rules of Debate and Order
- Committees and Committee Work
- General Features of Assembly Work

Popular Meetings and their Management

- Calling and Organizing
- Choice of Officers
- Conventions and Delegate Meetings
- Permanent Societies and Clubs
- Framing Constitutions and By-Laws
- Election of Permanent Officers
- Order of Business
- Motions and Debates
- Trial Proceedings

You may be elected to the Legislature or Congress. This Compendium of Parliamentary Law prepares you. Would you be a leader in your community? You are sure to be, if you study the organization and management of Popular Meetings and Societies as here presented.

Compendium of Parliamentary Laws.

Rules of Order for Deliberative Bodies.

The rules here laid down, and the parliamentary principles involved, are those in practice by the national House of Representatives, except where slight modifications become necessary in order to adapt them to the needs of ordinary deliberative assemblies. The word "assembly," as used herein, embraces any organization, meeting or gathering for specific or popular purposes, which is within control of duly elected officers.

How to Present Business.

When a member of an assembly wishes to introduce business he should do so by making a motion to that effect. Sometimes committee reports are received, and minor routine business conducted, without the formality of motions, but this custom is apt to develop into carelessness. A member can always compel a motion by objecting to the introduction of business without one.

How to Make a Motion.—In order to make a motion or to address the assembly at all, the member should rise and address the presiding officer by his title, "Mr. President," "Mr. Chairman," "Mr. Moderator," etc. When the Chairman recognizes him by name, he is said to "have the floor," and is entitled to proceed. This announcement of the member's name by the chairman becomes altogether necessary when two or more have risen to speak at the same time. The chairman must, in exercising this preference, use large common-sense; for instance, when two are contending for the floor, he should prefer a committee man who is about to report to one who wishes to present new business; one who has not yet spoken on a subject to one who has; one on a side opposite to the last speaker to one on the same side. If the chairman has not exercised tact in this respect or has shown partiality, he may expect an appeal from his decision, debate, delay, and possibly he may be reversed.

On the Floor.—The one who has obtained the floor has certain parliamentary rights which the chairman must protect him in. He cannot be interrupted except by a call to order; a call for the orders of the day or business; a question of privilege; or a motion to reconsider; and the interrupting member must state at once, on addressing the chairman, to what point or purpose he rises.

Seconding a Motion.—A matter for debate must not only be presented by a motion, but the motion must be seconded. The mover of the motion should rise and say, "Mr. Chairman (or other title) I move that ——." The seconder should rise and say, "Mr. Chairman, I second that motion." The chair should then say "It has been moved and seconded that (repeating the motion)." The motion is then property of the assembly. If the motion has been presented in writing it is passed to the chairman, who reads it. A mover can amend or withdraw his motion before the chairman announces it, but not after, except with the consent of the assembly; but if he amends it the seconder can withdraw his second. A certain class of motions, such as one to proceed with the regular order of business, does not have to be seconded; and so of that minor kind involving the approval of reports, which the chairman may announce as approved, on hearing no objection. Where a motion is lengthy, complicated, or a principal one, the chairman should exercise his right to demand that it be presented in writing.

General Classes of Motions.

Privileged Questions.—Motions are divided into four groups or classes. Calls or motions relating to privileged questions take precedence of all others. They are not debatable, except when relating to assembly rights or privileges of members. Their number and order of precedence among themselves are as follows:

1. Fixing the time to which the assembly shall adjourn.
2. Motion to adjourn.
3. Motion relating to rights and privileges of members or of the assembly itself.
4. Call for orders of the day.

Incidental Questions.—These are such as grow out of other questions before an assembly. They, in their very nature, must be decided before the questions out of which they grew. They are not subject to amendment, not as a rule debatable, and yield to nothing except privileged questions. Their number and order of precedence among themselves are as follows:

1. Questions of order.
2. Appeals on questions of order.
3. Objections to consider.
4. Reading of papers.
5. Leave to withdraw a motion.
6. Suspension of rules.

Subordinate Motions.—Subordinate, secondary, or subsidiary motions are those made for the purpose of disposing of the other motions before an assembly relating to main or principal questions. They therefore take precedence of the main or principal question, but yield to both the privileged and incidental question. Their number and order of precedence among themselves are as follows:

1. Motion to lay on the table.
2. Moving the previous question.
3. To postpone to a day.
5. To commit.
6. To amend.
7. To postpone indefinitely.

Main Question.—A motion to lay before an assembly a particular subject for consideration is called a principal or main question motion. It cannot be made when other questions are pending. The way must be entirely clear for it. It does not precede other motions, and yields to privileged, incidental and subordinate questions or motions.

General Character, Precedence and Effect of Motions.

Fixing Time to Which to Adjourn.—This motion heads the list under the class entitled "Privileged Questions." It therefore takes precedence of every other motion. Its form would be, "Mr. Chairman, I move that when this meeting adjourns it be to meet on —— (date)." In Congress it is never debatable, but in less formal bodies it is customary to debate it provided no other business is pending. It may be amended so far as the time is concerned.

Motion to Adjourn.—A motion to adjourn is a privileged motion, which takes precedence of all others except that just mentioned above. It cannot be modified by a subordinate or secondary motion, nor can it be amended or debated. A vote on it cannot be reconsidered. It cannot be repeated unless some of the regular business has been transacted meanwhile. Committees move "to rise" instead of "adjourn."

Membership or Assembly Privileges.—Motions which relate to the rights and privileges of members or of the assembly itself come third in precedence in the class of privileged questions, and precede all following in that class, and all in every other class. They may break into the order of business or even a speech. The chairman must first decide whether it is properly a question of privilege or not, and his decision is subject to appeal. It is debatable and may be modified by a secondary motion, but when once disposed of the business of the assembly must be resumed where it was broken off. A question of privilege may be disposed of by a motion to lay on the table or to refer to a committee.

Orders of the Day.—In the national House of Representatives the "orders of the day" are fixed by rule. Subjects whose consideration are fixed for a certain day or hour must be considered then and they take precedence of all other calls, motions or questions, except the three just mentioned, and a motion to reconsider. Orders of the day may be called for in an ordinary assembly while a member is speaking, but this is not allowed in Congress. Such call need not be seconded, is not debatable, but is subject to amendment.

Questions of Order—Appeal.—Both the chairman and members of an assembly have a right, and are in duty bound, to insist on a prompt enforcement of its rules. Thus, in case a member uses improper language in debate, any objecting member may call the debater to order. It is for the chairman to decide whether the speaker is in or out of order. If he is in doubt he may submit the question to the assembly. Or, if he has made a decision which is objectionable, an appeal may be taken from it to the assembly. If the breach of rules be other than that just stated, the objecting member may rise and say to the chairman that he rises to a point of order. This is notice to the speaker to cease speaking and to wait until the objector has stated his point of order and until it has been passed upon by the chairman, or by the assembly on appeal.

Every question of order takes precedence of the point or question which gave rise to it, and the chairman must decide upon it without debate. If his decision is appealed from, the one who moves the appeal should rise and say, "Mr. Chairman, I appeal from the decision of the chair." An appeal must be seconded. It cannot be amended and is not subject to debate except when it involves remote and unusual circumstances. A tie vote on an appeal sustains the decision of the chairman. An appeal must yield to a privileged question, also to a motion to lay on the table, and for the previous question if the appeal is debatable. No appeal can be entertained when a previous appeal is pending. A member can move for the reconsideration of an appeal.

Objection to Consider.—It is within the power of a member to object to the consideration of a debatable motion at the time it is introduced, but not after it has passed into debate. Objection to consider can be offered while another member is speaking and does not require to be seconded. It is not debatable, nor subject to amendment, nor to modification by a subordinate motion. The chairman refers the matter immediately to the assembly. It should be stated here that in parliamentary matters so heroic and far-reaching in their effects as "objections to consider," most assemblies provide that they shall not be carried except by a two-thirds vote.

Reading of Papers.—A call for the reading of a paper, at least once, is generally favored by an order of the chairman, directing the reading; yet, if the call appears to be for the purpose of delay the question of permission to read belongs to the assembly, and it is not debatable or amendable. It yields to all privileged questions.

Leave to Withdraw.—When the mover of a motion asks leave to withdraw it, or to modify it, or to substitute another, it is customary on the part of the chairman to grant it, provided no objections are made. In the face of objections, permission to withdraw can be had only through a motion to that effect. Such a motion yields to privileged questions, and to the other incidental questions which precede it. It is neither debatable nor amendable.

Suspension of Rules.—This is the last in the list of incidental questions, and yields to all that precede it on the list, and to privileged questions. It is usually provided that a motion to suspend shall require a two-thirds vote to sustain it. A motion to suspend is not debatable nor amendable; nor can it be reconsidered or modified by subordinate motions. In making a motion to suspend the rules, the mover must state clearly the purpose of the motion.

Motion to Lay on the Table.—This is the first in order of the six subordinate or subsidiary motions, and consequently takes precedence of all other motions of its class, yielding, as a matter of course, to privileged and incidental questions. It is an heroic motion, and removes the matter from the assembly, till it sees fit to take it off the table. It is not subject to modification by a subsidiary motion, nor is it debatable nor amendable, nor a subject of reconsideration. Usual forms are "I move to lay the matter on the table," or " that it lie on the table." Generally speaking, the motion to lay on the table, if carried, takes along with it all that is immediately connected with the subject; but for obvious reasons there must be exceptions in such cases as a motion to table an amendment to minutes. It would never do to permit the success of such a motion to carry the minutes with it. So, the tabling of a motion to reconsider, leaves the original question still where it was. The same is true of the tabling of an appeal, which leaves the original subject where it was; that is, it virtually sustains the decision of the chairman.

Previous Question.—This second of the subordinate or subsidiary motions yields, of course, to the first, and to all privileged and incidental motions; and from its very nature and purpose precedes the pending question or questions which are subjects of debate. It is applicable to the privileged questions and to all debatable questions, but cannot be modified by other subsidiary motions, nor be debated or amended. When one calls for the previous question he practically moves that debate cease on the part of the assembly and that the pending or main question be put. If the call for the previous question be seconded, the chairman says, "Shall the main question now be put?" Or, "Shall the call for the previous question be sustained?" If the assembly decides negatively the debate goes on as before; if affirmatively, debate stops and the assembly votes on the pending or main question. But, if there happens to be a motion to amend or commit pending, when the previous question is moved, the vote is forced on such motion as well as on the question to be amended or committed, the chairman putting such motions separately in their order of precedence. When an amendment becomes the previous question and is adopted, debate closes on the amendment only. The main question is still the subject of debate and further amendment.

To Postpone to a Day.—This third of the subordinate motions yields to its two predecessors on the list and to all privileged and incidental questions. It admits of limited debate, and amendment as to the time, and is subject to call as a previous question. It is customary to postpone a question to a future date during a session or to a next session; and when the time arrives the question has preference over all except privileged questions. When several questions are postponed to a date they are entitled to preference in the order in which they were postponed. Questions postponed to a day generally come up under the head of unfinished business. Sometimes, when the question postponed is of importance, its time is made the date of a special meeting for its discussion.

Motion to Commit.—This is the fourth motion in the list or class of subordinate motions, and takes precedence of its two followers, yields to its three predecessors on the list, and yields to all privileged and incidental questions. It is debatable and can be amended by so instructing the committee. When a question has been committed to a committee and reported upon it can be recommitted. In form it runs, "I move to refer the question (subject or matter) to the committee on ——," or "to a committee of — (naming the number) to be appointed by the chairman."

Motion to Amend.—This yields to all privileged, subordinate or incidental motions, except that to postpone indefinitely. As a matter of course it precedes that which is to be amended. An amendment can be amended, but not an amendment to an amendment. An amendment which does not bear directly on the original motion is not germane, and may be so declared by the chairman, subject to appeal to the assembly. Amendments may be to add to the original motion; to insert new matter; to strike out a part; to strike out and insert; to substitute entirely, the subject being preserved; to separate the question into more intelligible and debatable parts. Amendments to by-laws, constitutions and fixed rules are not permitted except on specified time of notice and generally on passage by a two-thirds vote. As has been seen, amendments are not allowable on unqualified motions to adjourn, on orders of the day, incidental questions, to lay on the table, the previous question, amendments to amendments. Neither are they allowable on motions to reconsider and to postpone indefinitely.

Postpone Indefinitely.—This last of the class of six subordinate motions yields to all others of its class, except that it cannot be amended. It also yields to all privileged and subsidiary questions. It is debatable and opens the entire subject to discussion. It is subject to the previous question, but not so as to affect the main question.

Motion to Reconsider.—This yields to privileged questions, except orders of the day, and to incidental questions, but precedes the main question. It is applicable to every question except to adjourn, suspend rules, and a carried motion to lay on or take from the table. It is not amendable, and a reconsideration cannot be reconsidered. When a motion to reconsider is tabled it does not carry the pending matter with it. It is debatable if the pending question is debatable, otherwise, not. It is in order at any time, but it cannot be considered while another question is under debate. It can be made, except when the vote is by ballot, only by a person who has voted with the winning side, or against the lost question. Generally speaking, a motion to reconsider should be acted upon at the session in which it is moved, for its effect is to postpone action on the main question till it (the reconsideration) is out of the way. If not so considered it dies; but where meetings are on certain weekly or monthly dates, it will go over to a succeeding session. As stated, it may be moved at any time, but not considered so as to interfere with a pending question. When, however, it does come up for discussion, it holds precedence of all motions except to adjourn to a fixed time, and to adjourn. If a motion to reconsider passes it brings the original question before the assembly in the precise shape it had when the vote was taken on it. Those who had exhausted their right to debate cannot re-debate it.

Rules of Debate and Order.

Undebatable Questions.—It may be well to repeat here, in part at least, what has already been said as to undebatable questions or motions, it being understood that all others are debatable. A motion to fix the time to which to adjourn is not debatable, except when it is made while there is no other business before the assembly.

So, a motion to adjourn or for a committee to rise is undebatable.

A call for the orders of the day, and all calls or motions relating to the order of business, are undebatable. So of an appeal from the chairman's decision on a point of order, or of any appeal when made while the previous question is pending.

An objection to consider is not debatable, neither are motions to lay on or take from the table.

A call for the previous question is not debatable, nor is a motion to reconsider, unless the question to be reconsidered is a debatable one.

To the list of undebatable questions may be added the following: motion for suspension of rules, extending limit of debate, reading of papers, withdrawal of a motion, closing debate, granting leave to continue a speech.

Majority.—Most motions are carried by a simple majority vote, but there is a class which requires a two-thirds majority to carry them. They should be remembered. They are: to make special order, take up question at proper time, suspend rules, amend rules, objection to consider, the previous question, to close or limit debate.

Opening the Main Question.—A motion to postpone to a certain time is debatable, but only as to the propriety of such postponement. The motion to commit has the effect of opening the entire main question to debate. So of the motions to postpone indefinitely and to reconsider a debatable question. When an amendment is under discussion the main question is not open to debate except in so far as it is inseparable from the amendment. Generally speaking, ordinary deliberative bodies permit question-asking and suggestions by members to a limited extent as a help to deliberations, but the chairman should see that such informal procedure does not delay business.

Debate.—Courtesy requires that the mover of a motion is first entitled to the floor and to speak upon it. So, the member who presents a committee report is entitled to both open and close the debate on the report. One who calls for the previous question, if the assembly sanctions the call, is entitled to close the debate. As a rule members are not entitled to more than two speeches on a subject, and these of reasonable limit, say ten minutes. The assembly may, however, extend the time by majority vote. An excellent rule is to prevent any one speaking a second time on a question till after all who wish to speak have done so. On all questions of order speeches are limited to one for each member. No mover of a motion can speak against it.

No member can indulge in personalities or vulgarities or obscenities in debate, and every debater should be required to adhere closely to the question under discussion. Officers should be addressed by their titles. When a member rises to a point of order, the one who has the floor must yield till the point is decided. If it is decided against him he cannot resume debate unless the assembly so votes.

Debates can be closed by assembly rules regulating the length and number of speeches; by fixing a stated time for closing; by moving the previous question; by moving to lay on the table; by objection to the consideration of a question, when it is first introduced.

Voting.—Undebatable questions are put to vote immediately by the chairman. It is the duty of the chairman, when he feels that debate is over, to ask if the assembly is ready for the question. If there is no response he puts the question, first stating it and that it has been moved and seconded. The common form is, "As many as favor the motion will say aye;" "those opposed will say no." The chairman is generally able to decide. But if he is in doubt he may put the question by calling for a show of right hands to be counted, or by calling for a standing-up vote to be counted. The chairman should announce the result by saying, "The ayes have it," or "The motion is carried," or by some definite words to the same effect. If a member doubts the result, he may call for a division. The chairman must respect the call, and announce that a division is called for. He then puts the motion by calling for a standing vote or a show of hands to be counted. Or, he may appoint tellers, one from each side of the question, to count the vote for him. Any member may change his vote before the chairman announces the result, but this cannot be done if the voting is by ballot. A member is not permitted to vote on a question touching himself; but when a motion or resolution embraces or affects two or more members, all are entitled to vote. Until the chairman puts the negative of a question it is still one subject to debate and amendment. When the vote is a tie, the chairman can break the tie by voting in the affirmative. If he does not exercise this privilege, the motion has failed to be carried. So, the chairman can vote when his vote will make a tie, and thus defeat a motion. Frequently assembly constitutions or by-laws require that in certain cases the manner of voting shall be by ballot. Then two tellers are appointed by the chairman, who distribute slips upon which each member writes his vote. These are gathered and counted and the result made known to the chair, who announces it to the meeting. Blank ballots are never counted. If, in the election of officers there be only one candidate in nomination, it is usual for the chairman to authorize the secretary to cast the assembly vote for the nominee; but this cannot be done in the face of an objection by a member.

If, as is the case in Congress, it is desired to preserve a record of the vote of members on any question, the assembly may decide by a majority vote to order a vote by yeas and nays. The chairman states and puts the question as before, the secretary calls the roll of members, and each member, when called, rises and says yea or nay (yes or no), which answer the secretary notes opposite the name. One cannot ask to be excused from voting after the roll-call has begun; nor can debate be had after the roll-call has been ordered, for the negative and affirmative votes are taken at the same time.

Committees and Committee Work.

Creation and Duties.—Committee work is of vast and growing importance in any deliberate body, for the committee finds time to prepare most of the work that is to come up for review and discussion. There are three general classes or orders of committees: 1. Select committees, which are appointed for some special purpose. 2. Standing committees, which are appointed for a session or some definite time. 3. Committees of the whole, comprising the entire assembly or meeting. The first two are appointed, as a rule, by the chairman, but they may be created by a motion. The first person appointed on a committee is its chairman, and in his absence, the second one appointed, and so on, unless the committee elects otherwise. When a member moves that a matter be referred to a select or special committee he usually mentions the number to compose the committee in his motion. If he does not, the chairman generally asks, "Of how many shall the committee consist?" Small committees, as those of three members, are the best working committees. The designation and number of members of standing committees are usually provided for by constitutions or by-laws, or rules of assemblies.

The chairman of a committee is furnished by the clerk or secretary with a list of the committee members. It is the chairman's duty to call the committee together, to see that there is a majority or quorum present, to read the matter referred to it, and to conduct the committee proceedings so as to best effect the object of its creation. Committee proceedings are carried on with less formality than those of the regular assembly, but as to voting, making motions, debating, amending, etc., there is a pretty general subscription to parliamentary rules, for a committee is an assembly in miniature. A committee puts its conclusions into the shape of a report, signs it, and presents it to the assembly. Nothing can go into the report that has not been sanctioned by a majority of the committee, but a minority of a committee may submit its views in writing as a minority report. Committees, especially if large, may appoint sub-committees for the purpose of specializing and concentrating work; but a committee of the whole cannot work through sub-committees. A committee cannot punish its members for misconduct, but should report the facts to the assembly. Members of a committee have no right to reveal to the assembly any of the committee's proceedings, except in the report or by general consent. Committees may adjourn to meet at the call of the chairman, or on a day stated.

Reports of Committees.—Forms of reports of committees vary. A select committee may begin its report with "Your committee, to which was referred (state matter), having duly considered the same, beg (begs) leave to report ——." Or, "the committee," or, "the undersigned committee." If the committee be a standing one it begins its report with, "The committee on —— beg (begs) leave to report as follows ——," or, "to submit the following report ——."

When a minority of a committee reports, it should begin its report with "The undersigned, a minority of a committee to which was referred," etc. A usual conclusion to a report is "all of which is respectfully submitted." Sometimes only the chairman signs the report, but it is better to have it signed by all who have concurred in it. When the time arrives for the assembly to receive the report of a committee, the chairman of it rises, reads it, and hands it to the secretary, to be held till acted on; but immediate action can be taken on it by a motion to receive it. The reception of a report by the assembly discharges the committee. If a report is recommitted to a committee, all that the assembly has not accepted of it becomes as if the committee had never reported. Adoption of a committee's report makes it the work of the assembly. If debate arises on the adoption of a report, the member who made the report cannot be deprived of his right to close the debate.

Committee of the Whole.—Sometimes an assembly finds it desirable to discuss a matter with committee freedom and without reference. It then, on motion made and carried, resolves itself into a committee of the whole. This is the equivalent of a motion to commit to a committee, and occupies the same place as to precedence in parliamentary law. The chairman of an assembly quits his chair when the body has resolved itself into a committee of the whole, takes his place among the members, and appoints another member to fill the chair. A committee of the whole cannot order the yeas and nays on a vote; cannot adjourn except by a motion to rise and report; and can only move to amend and adopt measures before it. Debates can be closed or limited only by voting that they shall cease at a certain time, or shall be limited in number and time, or by some other direct method. A committee of the whole cannot alter the text of a resolution referred to it, nor can it refer the subject to another committee, but can amend and alter any resolution which originated in it. Its motion to "rise" is always in order, except when a member is speaking, is not debatable, and is in other respects like a motion to adjourn. When passed, the chairman resumes the chair and makes such report as is appropriate to the situation. A quorum of a committee of the whole is the same as that of the assembly. If the temporary chairman cannot keep order, the regular chairman can re-take his seat. If no quorum be present, the committee rises and reports the fact to the assembly.

In small assemblies it is quite customary to act in an informal manner on questions, preparatory to subsequent formal action. This is but a substitute for a committee of the whole, and the rules of the latter are observed.

Other Features of Assembly Work.

Presiding Officer.—His title may be President, Chairman, Moderator, or any appropriate designation, but in ordinary assemblies, "Chairman" is most in vogue. When the time for opening the assembly has arrived, he takes the chair; calls the members to order, announces the business of the assembly in the order in which it is to be taken up, states and puts all seconded motions, announces results, enforces the rules of debate, preserves order, decides all points of order, authenticates proceedings, and represents the written and oral commands of the body. It is more courteous for him to rise than to sit when putting a motion. He should not use in address the first personal pronoun, but the word "chair." When a motion refers to the chairman, he does not put it, but the mover does. The chairman is entitled to vote when the vote is cast by ballot, but not in other cases except where his vote would change the result, as in case of a tie, etc. He can appoint a chairman *pro tem.* for a session, but if he knows he will be absent from a meeting he cannot designate another member to act for him. The assembly must then elect a president *pro tem.*, unless there be a vice-president who is present. The chairman may call a member to the chair and join in debate on the floor. He should be free from bias, coolheaded, a parliamentarian, and able and determined to administer the affairs of the assembly so as to best subserve its purposes.

The Secretary.—In every well-ordered assembly the secretary becomes a most important officer. His business is to make a written record of the proceedings, which record is called the "Minutes." His seat should be close to that of the chairman. Should the chairman not be present at the opening of a meeting it falls to the lot of the secretary to preside until a chairman *pro tem.* is elected; that is, if there be no vice-president present. He should keep the minutes in an exact manner, giving meeting date and place, kind of meeting, presiding officer, approval of minutes, and a detail of proceedings as they take place. Minutes should be signed by the secretary or chairman, or both. They need not contain reports of speeches, and should avoid all semblance of criticism. All leading motions should, however, be entered, and the results of votes, the committee appointments, etc. Informal proceedings need not be noted, nor proceedings in a committee of the whole. He should prepare and hand to the chairman an order of business, provided no such order is found in the by-laws. A customary order would run thus:

1. Reading and approving of minutes.
2. Reports of committees (standing).
3. Reports of committees (select).
4. Unfinished business.
5. New business.
6. Adjournment.

Should the assembly not desire to follow a regular or established order of business, it can by a two-thirds vote change the order. The secretary must read all papers and reports submitted to the assembly, if the chairman so requests.

Quorum.—Unless a quorum be present, the chairman should not take his seat, except when there is no hope of a quorum and consequently no possibility of transacting business; then he may declare the meeting adjourned for want of a quorum. Most assemblies have the number to constitute a quorum established by special rule, as five, seven, nine, or other number of members. Where no such rule exists it is usual to regard a quorum as a majority of the members. The same practice holds as to committees, trustees, etc.

Miscellaneous Points.—In law every deliberative assembly has the right to make and enforce its own laws and to punish an offender, but the extreme of punishment is expulsion from membership. If the society be a permanent body, it may, for self-protection give printed notice that the offender is no longer a member, but such notice must never embrace the charges against the offender, nor anything reflecting on him more severely than the mere statement of fact that the society had found expulsion necessary as a matter of self-protection.

The right to decide who shall be present in a deliberate body is inherent. If it be decided by rule or vote that any certain person shall not remain in the room during a session, and such person refuses to depart, the chairman may call upon a detail of members to eject him, taking care not to use more force than is necessary to accomplish the removal.

Charges preferred against a member are usually referred to a committee for investigation.

Popular Meetings and Societies.

Their Organization and Management.

A Public or Mass Meeting.

The Call.—A popular or mass meeting is generally the result of a call made by one or more prominent citizens interested in the furthering of a special matter or the general welfare. The call may be variously issued, as, for instance, through the newspapers or by written or printed notices posted or mailed. It should state clearly the object of the meeting, and the time and place.

How to Organize.—When a sufficient number has assembled, and the time appointed has passed a little by, one of those interested rises and says: "Gentlemen (or ladies and gentlemen) you will please come to order," or, "The meeting will please come to order." When silence is secured, the same person, or any one in sympathy with the object of the assembly says, "I move that Mr. B. act as chairman of this meeting," or, "I nominate Mr. B. for chairman of this meeting." Some one else says, "I second the motion," or "the nomination." The mover then says, "It has been moved and seconded that Mr. B. act as chairman of this meeting; all in favor of the motion will say aye." He then puts the negative by saying, "Those opposed will say no." If a majority votes in the affirmative, which is generally the case, he says "The motion is carried, and Mr. B. will take the chair," or, "Mr. B. having been duly elected to preside over this meeting will please take the chair." If the motion is lost, he announces the fact, calls for the nomination of another person, and proceeds as before. In large assemblies it is not unusual for the mover to escort the chosen chairman to the chair, and for the latter to make a short speech of thanks for the honor conferred.

Choice of Other Officers.—The chairman then says: "Whom shall we have for secretary?" or, "The first business in order is the election of a secretary." Some one rises and says, "I move that Mr. S. act as secretary," or, "I nominate Mr. S. for secretary." The chairman puts the motion as already described. When several names are called out, the chairman announces them as called, and then takes a vote on the first called by saying, "As many as are in favor of Mr. S. (the first called) acting as secretary of this meeting will say aye," "those opposed will say no." If the motion is lost, he puts the question on the second one called, and so on till a choice is made. In large assemblies it is not unusual to name a number of secretaries and vice-presidents simply for effect, and even if they be absent.

Resolutions.—With the election of a chairman and secretary almost any meeting of the popular or mass kind is sufficiently organized for business. The chairman may then say, "What is the further pleasure of this meeting?" Or he may proceed to state the object of the meeting, or call on some one to state it. Ordinarily, some one has on hand a series of resolutions containing the object, and at this stage of proceedings and in reply to the chairman's question, he rises and says, "Mr. Chairman, I move the adoption of the following resolutions," which he then reads and hands to the chairman or secretary. Another person says, "I second the motion." Frequently the resolutions are first handed to the secretary with the request that he shall read them; and sometimes the chairman requests him to read them a second time. After the motion to adopt has been seconded, the chairman says, "It has been moved and seconded that the resolutions just read be adopted," or, "the question is on the adoption of the resolutions just read." If no one rises for discussion, he immediately follows with, "Are you ready for the question?" Again, if no one rises, he says, "All who are in favor of the adoption of the resolutions just read will say aye." After the vote, he puts the negative of the question and announces the result by saying, "The motion is carried," or, "The resolutions are adopted," or, "The ayes have it."

Committee to Draft.—If, on the other hand, there be no "cut and dried" resolutions to offer, it is customary to appoint a committee to draft them. To do this, a member rises and says, "Mr. Chairman, I move that a committee be appointed for the purpose of drafting resolutions expressive of the sentiment (or object) of this meeting." He may follow with a statement of the object or sentiment as he understands it. When this motion is seconded, the chairman states the question, and asks "Are you ready for the question?" If no one speaks he puts the question and announces the result. If the mover of the motion has not mentioned the number to compose the committee in his motion, the chairman asks, "Of how many shall the committee consist?" or, he may say, "Unless the chair hears an objection he will appoint a committee of three (five, seven). If there is a divided sentiment as to the number, a vote may be taken to settle the number.

The next question would be, "How shall the committee be appointed?" This question is usually settled in favor of the chair, by common consent; and then the chair announces the committee, naming the mover of the motion first, who becomes chairman of the committee. Sometimes the chairman merely nominates the committee, and leaves it to the assembly to ratify his nomination by a vote.

Committee Session.—The committee should immediately retire (meet) to confer, and agree on a report. Meanwhile the meeting may be entertained by hearing speeches, recitations or music. The committee's report should be in writing. On the return of the committee, its chairman says, "Mr. Chairman, the committee appointed to draft resolutions is ready to report." The chairman of the meeting says, "The meeting will now hear the report of the committee on resolutions." The chairman of the committee then reads the report (sometimes hands it to the secretary to be read) and passes it to the presiding officer, which action has, as a rule, the effect of dissolving the committee without other formality.

Adoption of Report.—The report is now the property of the meeting. Some one moves that it be "adopted," or that "the resolutions be agreed to." Such a motion, when seconded, usually invites discussion, which should be freely allowed. When the meeting is ready to vote, the chairman puts the motion affirmatively and negatively, as already seen, and announces the result.

Adjournment.—When the business of the meeting has been transacted, or for any other reason, some one moves to adjourn. This motion, when unqualified, takes precedence of all others, except that to fix a time to adjourn to, is not debatable, cannot be amended, cannot be modified by a subsidiary motion, and cannot be reconsidered. When seconded, the chairman puts it in the manner already seen and announces the result. If carried, and no other time for a meeting has been fixed, he says, "The motion is carried and the meeting stands adjourned *sine die* (without day). For duties of officers, see further on in these pages, and for parliamentary rules consult the COMPENDIUM OF PARLIAMENTARY LAWS, elsewhere in this work.

Temporary Organization.—Sometimes, when time is not precious and formality is desirable, popular meetings are officered by first forming a temporary organization, in which the forms already mentioned are gone through for the choice of a chairman *pro tem.* and a secretary *pro tem.* As soon as these *pro tem.* (for the time) officers are chosen, a committee is appointed to nominate a set of permanent officers, who become the real officers on the adoption of the committee's report. If more officers than a chairman and secretary are required, they can be provided for by vote at any time before the report of the committee on resolutions. Where complimentary secretaries or vice-presidents have been appointed, as in large political or other public meetings, they usually take seats on the platform for effect.

Conventions or Delegate Meetings.

These are of a higher class than mere mass meetings, in the respect that they are composed of members who have been elected or appointed by electors, authorized committees or popular bodies. It therefore becomes necessary to know as soon as possible, and before a permanent organization is effected, who are properly members of or delegates to the convention. In order to do this, a temporary organization is brought about by the election of a chairman and secretary *pro tem.* as already described, care being taken to put no one in these offices whose right to a seat is doubted. After this, the chairman says, "The business now in order is the appointment of a committee on credentials." Some one rises and says, "Mr. Chairman, I move that a committee on the credentials of members be appointed," or, "I move that a committee of three (five, seven) on credentials be appointed." Whatever form the motion may take it is usual to add to it the words, "and that the committee report," or, "with instructions that the committee report," "as soon as practicable."

Next, the chair repeats the motion and puts it in the usual form. If carried, he asks, "Of how many shall the committee consist?" and "Shall the chair appoint the committee?" provided the motion has not mentioned the number and manner of appointment. After the committee is appointed, it retires, examines the credentials of members and makes up a list of those it finds properly qualified, also of those it finds disqualified and the reasons of disqualification; also a list of all doubtful or contested cases, if any, with such recommendations as the assembly can adopt or reject by vote. In acting upon the committee's report no members have a right to vote except those whose credentials have been found all right by the committee.

Permanent Officers.—As soon as the matter of credentials has been disposed of, the chairman says, "The next business in order is," or, "We will now proceed to," "the election of permanent officers of this convention (assembly)." Nominations may be made by motion, as previously seen, but it is better to proceed more formally and for some one to move that a committee be appointed (it may state the number and by whom it shall be appointed) to nominate the permanent officers of the convention. When seconded, the chair repeats the motion, and puts it in the form already seen. If carried, he appoints the committee. Such committee should act and report promptly, as the convention cannot do regular business till permanently organized. When the committee reports some one moves that the report be accepted, sometimes adding, "and that the officers nominated be declared the permanent officers of this convention." If a minority of the committee have reported a competing set of officers, or in any case where there is competition, the situation is best relieved by a motion to proceed to a ballot for permanent officers, those reported being the nominees. After a choice of officers the chairman calls them to the chair, replacing the officers *pro tem.;* or, he may call the permanent chairman to the chair as soon as he is elected. The convention, assembly, or what not, is then regularly organized for the work before it.

The Permanent Society or Club.

Only those who have considered the matter and are agreed on its propriety should be present at the first meeting to form a permanent society or club, *i. e.,* an organization to operate for an object and under a plan laid down in a constitution and by-laws. After the time at which the persons notified were to meet has passed a little, some one should rise and say, "Gentlemen (ladies, or ladies and gentlemen), the meeting will please come to order." When order is secured, he should continue with, "I move that Mr. —— act as chairman of this meeting." When the motion is seconded, he puts it to a vote in the way already described, and announces the result. He then says, "The chairman elect will please take the chair." The chairman takes the chair and immediately says that the next business in order will be the election of a secretary. This may be done by a motion nominating some one for secretary; or, if there be competition by making nominations, and proceeding to a ballot.

Reaching the Object.—Next, the chairman should invite one whom he knows to be familiar with the object in view to state it for the benefit of those present. This member rises, addresses the chair, is recognized by the chair, and proceeds to state the object of the meeting. Others are given opportunity to express their views. Indeed, it is perfectly proper for the chairman to strive to get from those present as full an expression of views as possible, but he should take care not to encourage vapid talk or lose control of the situation. When this informal procedure has gone sufficiently far, some one should rise and say, "Mr. Chairman, in order to arrive at something definite, I move the adoption of the following resolution: *Resolved,* That it is the sense of this meeting that we organize a society (club) to be known as the ——, to be located (state place), and to have for its object (state object)."

This resolution should be in writing, and, where possible, should be prepared in advance by some one interested in the object. When read and seconded, it is open to debate and amendment, and when the time is ripe the chairman puts the question and announces the result. Now all the procedure thus far implies that the meeting is a small and friendly one. If large, it would be best to omit all informal talks, and have some one who has come prepared with a resolution to offer it as soon as the officers have been chosen.

Committee to Draft.—After the adoption of the resolution to form, the manner of forming comes up. Some one moves that a committee of three (five or seven) be appointed (best say, by the chair) to draft a constitution and by-laws for the —— society (club). It is usual to mention in such motion the time at which such committee shall report, and it is best to say, "at an adjourned meeting," unless the committee, or some member of it, has in hand a prepared constitution and by-laws. The motion to appoint a committee of this kind is both amendable and debatable.

Adjournment.—If the motion to appoint the committee contains the clause to "report at an adjourned meeting," and after the committee has been appointed by the chair, a motion to adjourn is in order, but such motion should embrace the time and place of the next meeting. Such a motion is open to debate and amendment. It would have been just as proper, and sometimes it is preferable, to embody the time and place of the adjourned meeting in the motion to appoint the committee on constitution and by-laws, by making it read "to report at an adjourned meeting at this place on next Monday evening at 8 o'clock." If the time and place have thus been fixed, then a simple motion to adjourn may be moved, which motion is not amendable or debatable.

Report of the Committee.—When the adjourned meeting has been gathered, the officers of the former one preside, if present. The chairman calls the meeting to order and asks the secretary to read the minutes of the last meeting. After the reading, the chairman says, "Are there any errors or omissions to be noted in the minutes?" Or, "is there any objection to the adoption of the minutes?" If no one rises to note an error or object, the chairman may say, "There being no objection;" or, "the minutes having been corrected, they will stand approved as read."

The chair then says, "the next business in order is the hearing of the report of the committee on constitution and by-laws." The chairman of that committee addresses the chair, is recognized, reads the report and hands it to the chair. Or he may hand it to the secretary to be read. Sometimes, which is a good custom, the chairman passes the report to the secretary, with the request that he re-read it. After the reading the chairman asks, "What shall be done with the report?" It is proper now for some one to move the adoption of the report as a whole, or the constitution and by-laws as a whole. This would prove a short cut if no objections arise. In anticipation of objection, or for the purpose of inviting discussion, at any rate, in all fairness to everybody, a better motion would be to move that the constitution be adopted by sections. The sections are then read and acted upon one by one. If all are adopted, or as all have been adopted after amendment, the chairman says, "the constitution having been adopted seriatim (or by sections) it is now ready for adoption as a whole; are you ready for the question?" If there is no response, he says, "Those in favor of the adoption of the constitution as a whole will say aye; those opposed, no." The chair then clearly announces the result, and, if it has been favorable, asks those who wish to become members to sign it. Business is generally temporarily suspended for this purpose, either by a motion or by the chair's announcement.

By-Laws and Officers.—The meeting then takes up the by-laws and proceeds with them as it did with the constitution. After their adoption, the chairman says, "The next business in order is the election of permanent officers under our constitution (or by-laws)." If the exact manner of electing officers is provided for, the election is held in that way. If not, some one may rise and nominate a president (chairman, etc.). Two or more may be nominated. Or, a motion may be made to appoint a committee on nominations. In any event, if there are two nominees for any office, the election should be by ballot through tellers appointed by the chair. The meeting proceeds thus till it has elected all the required permanent officers. As each one is elected he goes to his official place and takes the seat of the temporary officer, who retires. When all are in their places, the organization of the society, club, etc., has been completed, and it has formal existence. But if it desires to acquire real estate, it must go further and get a charter from court or State. For this purpose it will require the services of an attorney.

Framing Constitutions.—Some societies adopt only constitutions, making them elaborate. Others adopt only by-laws. It is perhaps best to adopt both, making the constitution brief, fundamental and difficult to amend; the by-laws more general and more readily amendable. In the latter instance it is sufficient if the constitution provides as follows:

1. Name of the society, club, etc.
2. Object.
3. Qualification of members.
4. Name and number of officers.
5. Manner of election and duties of officers.
6. Meetings of the society (but this can be left to the by-laws).
7. How the constitution can be amended.

The last of these articles should provide for the length of time required for a notice to amend, and that at least a two-third vote shall be required to adopt an amendment.

Framing By-Laws.—Every other feature of the organization which it is desired to place beyond the power to modify at a single meeting should enter into the by-laws, such as the manner of conducting elections; rules of order; order of business; salaries, if any; number, method of appointing and duties of committees; standing rules; etc. They should state the manual of parliamentary law that shall be followed in motions and debates. See COMPENDIUM OF PARLIAMENTARY LAW elsewhere in this book. They should provide the manner of their amendment, and be in keeping with the constitution.

The Presiding Officer.—The chairman, president, or by whatever name designated, calls the meeting, society, club or organization to order at the fixed time, presides over it, announces the business in the order established in the constitution or by-laws, puts all questions properly moved and seconded, preserves order, decides all points of order, subject to appeal. He may retain his seat, except when he engages in debate, when he should leave the chair temporarily, calling another to fill it. He can vote when a ballot is taken, or when his vote would affect the result of a *viva voce* vote, as in case of a tie. He should insist on being properly addressed as "Mr. Chairman" (president, etc.), and should properly recognize the rising member by name when he wishes to take the floor. He should be cool, impartial, firm, and well-posted in parliamentary rules.

Secretary.—The secretary, clerk, recorder, or by whatever name designated, keeps the record or minutes of the proceedings. It is almost impossible to describe exactly how best to do this, for much transpires in nearly every intelligent meeting or society that can properly be omitted from the minutes. He should tax his ability to make a plain narrative of essential events or transactions, and not burden his minutes with informal proceedings, details of speeches, etc. It is usually enough to say that the question (stating it) was discussed in the affirmative by Mr. A., Mr. B., etc., and in the negative by Mr. C., Mr. D., etc. He should fully note motions and resolutions, committee reports, chair rulings, appeals, and special matters of historic value. He should preserve his minutes in a book, and abstain from all critical comment in writing them up. A good form of minutes might run:

Hall of the —— Society (club, association, etc.).
January —, 1902.

The society met in regular session at 8 o'clock p. m., the officers elect being in their chairs. The minutes of the last meeting were read and approved. Applications for membership were received from Mr. ——, and Mr. ——, and referred to a committee composed of ——. The committee to whom was referred the applications of Mr. —— and Mr. ——, reported favorably, and on motion of Mr. —— they were duly admitted as members of the society. The committee on (naming it) reported through its chairman, Mr. ——, as follows (report). The report was discussed and unanimously adopted. There being no further business before the society, on motion of Mr. —— it adjourned.

JAMES SMITH, *Secretary.*

The secretary is the custodian of all papers of a society, club or permanent organization, not in the special keeping of other officials. Some societies combine the offices of secretary and treasurer in one person. In such case he keeps separate records and makes separate reports. In entering the constitution, by-laws, and other standing regulations in a book, the secretary should leave the page opposite his entry blank, in order that he may find space thereon to enter amendments, with their dates.

Treasurer.—The duties of this official are generally prescribed with some degree of detail in the constitution or by-laws. In general, his duty is to receive and pay out the funds of the society. He reports at stated periods (usually annually) giving an account of the balance in hand at previous report, the amounts received together with the sources, the amounts expended and the purposes, and the balance in hand (or deficit). His report is usually referred to an auditing committee, who examine it and report upon it. If correct, and the committee's report to that effect is adopted, this adopts the treasurer's report. Every treasurer should be careful to take and preserve receipts as vouchers. As a rule, disbursing officers are placed under bond.

Committees.—For the appointment of committees, their methods of procedure and reports, see COMPENDIUM OF PARLIAMENTARY LAW, elsewhere in this book.

Introduction of Business.—See COMPENDIUM OF PARLIAMENTARY LAW, elsewhere in this book. Also consult same for the rules of debate, character and effect of motions, and parliamentary principles in general.

Some Legal Points.—A deliberative body can protect itself by insisting on observance of its laws. If they are violated, the offender may be rebuked, or, as an extreme penalty, expelled. In permanent societies, notice of such expulsion may be made public as a matter of self-protection, but public notice of the charges against the offender, or the cause or causes of the expulsion must not be made. An unruly member of a society, or one who has no right to be present, may be removed from the meeting by the officers, a committee for the purpose, or a sufficient number of volunteer members, but care must be taken to use no more force than is necessary for the purpose.

Trial Proceedings.—Charges against a member are usually referred to a committee for investigation and report at the next or some subsequent meeting. If the committee sustains the charges the member should be given opportunity to explain or refute the charges before final action is taken.

National, State, Civic and Social Etiquette

RULES THAT GOVERN IN ALL PUBLIC & SOCIAL FUNCTIONS

THE CODE POLITE

IN OFFICIAL AND SOCIETY LIFE

COMPRISING AMONG ITS MANY RULES:

Order of Precedence at the National Capital
The President's Social Functions
White-House Receptions
Rank and Social Function of Cabinet Officers
The "At Homes" of Public Personages
Duties of Women in Official Circles
Formalities of Public Calling
Rules for Official Entertaining
Social Status of Ambassadors and Ministers
Etiquette at State Capitals
Salutations and Introductions
Etiquette of Conversation
Greetings and Departures
The Society Debut
Gentlemanly Etiquette
Rules of Street Etiquette
The Etiquette of Calling
Dinners, Dining-room and Table Etiquette
Teas and Evening Entertainments
Etiquette of Parties and Costumes
Courtship, Wedding and Church Etiquette
Anniversary Celebrations
Etiquette of Travel
Funeral and Mourning Etiquette
General Laws and Rules of Politeness

A COMPLETE GUIDE FOR PUBLIC AND SOCIAL CONDUCT. WHAT TO DO, AND WHAT NOT, ON ALL OCCASIONS. EASE AND COMFORT IN CONTACT WITH THE WORLD ARE PIVOTS ON WHICH FORTUNE TURNS :: :: :: :: ::

National, State, Civic and Social Etiquette.

The General Subject of Etiquette.

The Universal Need.—Very few men and women are without ambitions. All should have them, for the mortal destitute of aspiration is a pitiable waif aimlessly afloat on life's ocean. Some desire and seek for riches, using, as a rule, the ordinary laws that govern honest accumulation—alas, how many, in overambition, violate those laws to their shame and hurt! Some strive for political success according to approved methods, but far too many by doubtful means. Some are eager for position and place, of this or that kind, and dedicate their lives to the attainment of their object. Even where success is met with, it cannot be said that content and happiness are necessary sequels, for these are creatures of a realm far beyond the purely selfish and that spirit of individualism which differs not from narrowness and seclusion. To meet fully the requirements of success, to use aright and for the highest good the results of achievement, to make purely personal attainment contributory to the individual and the general welfare, in a word, to do all with worldly acquisition that good sense, high character, generosity of spirit, innate gentility and respect for the "golden rule" require, far excels in importance any other of life's conquests. We are all of the world and responsible for our "talent," and there is crying need for those laws of propriety and rules of conduct which recommend us to proper fellowship with our kind and fit us for the rational enjoyment of earthly possessions.

Essentials of Etiquette.—Etiquette, even when reduced to rigid rules, has an undoubted refining effect on social life, but it is not necessary to regard it as a rigorous system, unyielding as a yoke and oppressive in its lack of elasticity. It is the great principle of etiquette that must be acknowledged as a vital essential, for nothing is surer than that such principle is all pervasive amid civilization, and that those who neglect or repudiate it invite both social and business estrangement and subject themselves to the hardships of exclusion. The overshadowing principle is sound, essential, a badge of culture and civilization. Exact formula may shift to suit locality or at the behest of fashion, but the essence of etiquette remains as one of the most powerful of life's forces. It is inseparable from all that makes for personal standing in any intelligent community, for the duties of enlightened citizenship, and for that larger success and happiness which outweigh in the world's scales every consideration of material triumph. Even if etiquette were nothing more than mere conventional manners, it is, nevertheless, a standard by which to measure conditions which polite men and women insist upon as necessary, and absence of which is robbery of the great social temple.

Study of Etiquette.—Nothing can be more helpful to intelligent and aspiring men and women than an available code of etiquette. Such a code, if well considered and digested, becomes a means of unraveling a thousand embarrassments, and of promoting countless successes in social battles. But it must be studied from such a view-point as that there shall be escape from the conviction that it is in itself a labored effort to enforce behavior by rule. The adaptation of life to rule, or of rule to life, may be defeated in its object by insistence on a strenuous regularity, perfectly fitting in one instance, or under a certain set of conditions, yet a source of embarrassment under others. As a start, the proper study of etiquette is to the rules, of course. They represent a wide and, mostly, a wise prescription and a popular consent. They cannot be defied, so intimately are they woven in with business and social structures. But a secondary study should be assiduously directed to just how a rule may be made to fit an individual. Some adapt a rule with ease and it becomes their social salvation. Others fit themselves awkwardly to rules, but the gist of the thing is there, and they must discover if the rule needs slight modification, or if they themselves do not need to overcome a certain amount of self-consciousness, or some other defect of organization, in order to effect a happy compliance.

Etiquette a Test.—In whatever light one may look at it, there is no question in any walk of life but that etiquette is one of the most resourceful and impressive of accomplishments. Its true meaning is deep, wide and endless. It is a homecomer at almost every step and turn. The polite, well-bred person is always a centre of interest and attraction. If a lady, she is simply irresistible. Such persons have always an entrée and welcome. They walk erect where others stoop or crawl. Urbanity is a standing invitation to the social, and even business, estate. No charm so captivating as that of good manners, nothing more complimentary to one's taste and culture than possession of the qualities which confirm care in good breeding. High-life and low-life ever make politeness and respectful observance of the amenities a test of both outward training and inherent nobility of character. Etiquette adds to beauty in women and to bravery in men. It strengthens self-respect and bars embarrassment. Civility assures the good opinion of companions. It substitutes grace for familiarity, and lends dignity to firmness. It banishes arrogance, but never surrenders to weakness. It tells what to do in any company, contributes to ease and comfort and leaves one always in possession of his full natural powers. The polite man is a winner in all walks of life.

National Etiquette.

General Character.—It must be remembered that the National Capital requires, or at least has developed, a code of etiquette peculiarly its own. This is because of the mingling of official with social life. Official life is composed of representatives from all parts of our own country and from every section of the globe. They come schooled in their own ways, yet with cosmopolitan dispositions, and a readiness to subscribe to some code which will render conduct easy, while at the same time nothing is subtracted from their own dignity. For this reason strictly social life in the National Capital is largely tinged with the official life, and social etiquette may be said to bow, for the most part, to that which regulates, or is supposed to regulate, officialdom.

Power of Precedence.—In a republic, where titles are absent, and all are supposed to be equal before the law, the rules of precedence are difficult to establish in unbreakable form. Indeed it is only on important State occasions that rigidity becomes a *sine qua non*. When it does, an order of procedure, or rather of precedence, is a first essential. This necessarily ignores sheer personalism, and involves official characteristics; that is, precedence is established by office. This is as to men; and women fall into position through the official status of their husbands. But in all this, it must be remembered that official etiquette, while lacking the refined elements of personal compliment, and while addressing itself to the office borne, is none the less in harmony with democratic sentiment. It is a dignified and saving element, quite worthy of cultivation and indulgence, and helpful all along the lines of official duty.

Order of Precedence.—In both official and social etiquette, the President of the United States ranks as the head. He is the "first gentleman in the land," as his wife is the first lady, and he is always spoken of as "the President." At State receptions it would be within the power of the President to regulate precedence according to the Act of Congress establishing the Presidential succession, did not convenience and subscription to conventional customs sometimes dictate otherwise on such occasions. According to the Constitution the Presidential rank and power pass to the Vice-President on the death, removal or disability of the President. According to the Act of Congress above mentioned, the rank of President passes beyond the Vice-President, in the case of his death, removal or disability, in the following order: (1) To the Secretary of State; (2) to the Secretary of the Treasury; (3) to the Secretary of War; (4) to the Attorney-General; (5) to the Postmaster-General; (6) to the Secretary of the Navy; (7) to the Secretary of the Interior.

The Diplomatic Corps.—When the Presidential function is that of a morning New-Year reception at the White House, it is complimentary to receive the foreign Diplomatic Corps first. This is in deference to a custom which prevails largely in other civilized countries, and it involves the courtesy due to distinguished representatives of foreign courts who are, as it were, strangers in a strange land, and therefore worthy of a consideration which may be classed as exceptional. However invidiously some may regard the custom, it is a very pretty one and not without a substantial basis of support.

The Chief Justice.—On all strictly State occasions the Vice-President is entitled to his rank as next to the President. After the Vice-President comes the Chief Justice of the Supreme Court. He owes this distinction to the fact that he not only enjoys a life position, but is a representative of the entire country. In honoring the functions of this high place on State occasions, he does not, however, usurp the privilege and duty of Cabinet officials to directly represent the President by heading the line of those who are about to be received by him at the White House. By parity of reasoning or, at least, by immemorial usage, the Chief Justice and Associate Justices of the Supreme Bench have precedence of Senators, the latter being representatives of States only in their severalty, while the former are representatives of a distinct branch of the Government itself, not temporarily and by suffrage, but through the executive head and for life or good behavior.

Further Order of Precedence.—So much is the

Cabinet regarded as a part of the President's household, that at formal receptions their functions really blend with his. Among themselves there is really no precedence except that suggested by, and permissively observed under, the provisions of the Act of Congress relative to the Presidential succession. Their precedence of other public functionaries at State receptions is both due to their place in the Presidential household, and to the necessity he finds for their presence at the head of reception columns, in order to extend greetings which he might find individually impossible. A step further in the order of precedence leads to the Speaker of the House of Representatives. This is his due both because of his great influence over legislation and, consequently, his importance to the Administration, and because he holds an office that in a measure represents the entire people. After him follow in order the General of the Army and the Admiral of the Navy when these offices have existence. If they do not have, some highest representative of these two departments is usually assigned the honorary place. Following the above comes the Governor of a State, in recognition of the fact that as a chief executive of a part, he has power and function quite analogous to the chief executive of a whole.

Of Ambassadors and Ministers.—In the homes of foreign Ambassadors and Ministers, they ascribe priority to the Secretary of State, except when the Vice-President is present, because he represents the President, and is the functionary through whom they conduct their official intercourse. In order to avoid such a subordination as that just above mentioned in the exception, Ambassadors and Ministers are on their guard not to invite the Vice-President and Secretary of State to their houses on the same occasion. When an Ambassador or Minister is invited to dinner, he may with propriety—it is often necessary—inquire of the hostess, in his note of acceptance, about the place which will be assigned to him at the table, for it is his province to know in advance whether or not the dignity of his high office will be maintained in the assignment of his place. No guest of honor from an Ambassador's own country can be assigned to a place over him, that is to say, to a place to the right of the hostess, unless, forsooth, a member of the royal family of the country he represents should happen to be present, when he takes precedence. At dinner parties and on State occasions courtesy calls for a recognition of an Ambassador next after the President and Vice-President. If a Cabinet officer gives the dinner, and an Ambassador and his wife be present, they are assigned the places of honor over any other member of the Cabinet who may be present. Owing to customary procedure in foreign countries, it becomes quite necessary in this country to observe the courtesy of honoring the wives of Ambassadors equally with their husbands, not only by assigning them a place beside their husbands at table, but by the host himself becoming the escort of the wife of the ranking Ambassador. In case the dinner is given by a lady, the above escort duty devolves on the gentlemen of highest rank present.

White House Rules.—The following rules are at present in existence at the White House. It will be seen that they pertain more to the conduct of official business than to etiquette, and therefore they are subject to modification and re-publication by each new President:

1. The Cabinet will meet on Tuesdays and Fridays from 11 a. m. until 1 p. m.
2. Senators and Representatives will be received from 10 a. m. to 12 m., excepting on Cabinet days.
3. Visitors having business with the President will be admitted from 12 to 1 o'clock daily, except Cabinet days, so far as public business will permit.
4. The East Room will be open daily, Sundays excepted, for the inspection of visitors, between the hours of 10 a. m. and 2 p. m.

Receptions and Dinners.—Formal White House receptions and dinners begin with the ushering in of each year, unless some fatality should prevent. These are officially listed prior to the beginning of each year, and published, with their dates, broadcast throughout the nation, the newspapers being glad mediums of publicity. Their order may vary with administrations, but the following is pretty well stereotyped:

1. On January 1, the President, with his family, holds his New Year reception. It is attended by ladies and gentlemen alike, and by all the officials and foreign diplomats, the latter appearing in full court dress. Altogether it is a brilliant affair, full dress being the rule, and the costumes of the ladies being particularly costly and striking. All rules of etiquette are rigidly observed, and among them is the feature that none of the ladies remove their hats, except those of the President's own family, or such as may be assisting in the reception. The time of such reception extends from 11 a. m. to 2 p. m.
2. At an appointed, and previously announced, time, the President holds his first State dinner. This is an honor extended to his Cabinet. It is next in order to the New Year reception, and is conducted in a formal manner.

3. As a rule the above dinner is followed, at a stated time, by an evening reception at the White House in honor of the Diplomatic Corps, the hour usually observed being from 9 until 11 o'clock p. m.

In general this is followed by a second and daylight State dinner in honor of the same body, but with a variation of the particular functions.

4. At a subsequent and stated date the President extends a State reception, the second in order, to the Judiciary and the Congress.

5. The third State dinner, in order, given by the President is in honor of the members of the Supreme Court.

6. At a subsequent stated time the President honors the Army, Navy and Marine Corps with a State reception, which is his third in order during the reception season.

Public Evening Reception.—All the above honorary receptions and dinners have been necessarily limited to those in receipt of cards of invitation. But now comes one, the fourth evening reception in order, at which cards are dispensed with. It is in honor of the public at large. The caller simply enters the White House, gives his name to an usher, and is then announced. It may be here stated that the etiquette of this reception appertains to all State receptions extended to the public. After being announced, the caller approaches the President and is introduced by some one in official capacity, whose duty it has become to perform this ceremony. It is usual to exchange a brief word of greeting or casual remark with the President, but when the crowd is great and time urgent, a simple bow is all that etiquette requires. Usually certain rooms of the White House are thrown open for inspection during a public reception, and the caller is now at liberty to pass through them, or to retire immediately, as he or she pleases. It is not necessary to observe strict dress formalities at these public receptions, nor even the more rigid rules of etiquette. They are for all, and to insist on compliance with a formal code would render them cold and forbidding, whereas their very purpose and gist are to make them cordial and democratic.

Invitations.—The President has the option, and he generally exercises it, of inviting private citizens, of social and other note, to his State dinners. Of course, he is compelled to limit the number of these, so as not to crowd the occasion, and rare tact is necessary so as not to mar congeniality. Some persons are in the habit of extending requests to be invited to State dinners, but this not in good taste, and with a President of spirit such solicitations generally defeat themselves. But this rule does not hold with reference to State receptions. Here a request, through the President's private secretary, to be honored with an invitation, is not improper, for it may happen to be in the line of such diplomacy as the President would be glad to recognize. It is not polite to refuse to accept an invitation to a State dinner at the White House, because courtesy construes it as somewhat in the nature of a command, or, at least, as taking priority over other invitations previously received, or other appointments previously made. Should a contingency arise which absolutely prevents attendance on a State dinner, the reason for the same should be stated in the reply to the invitation. The President's dinner invitations take various forms, but a usual and tasteful one is:

The President and Mrs. Roosevelt
request the pleasure of the company of
Mr. and Mrs. Thomas A. Morgan
at dinner on Monday evening,
November 16, *at* 8 *o'clock.*
1903.

State Dinner Etiquette.—At State dinners the guests are received in the East Room of the White House. Full time is given for them to assemble there, and the President does not put in an appearance till the exact hour announced for the dinner has arrived, though his wife may have preceded him by a few minutes. On the appearance of the President, the guests advance to greet him. These formalities end with a signal given for dinner, when the President, leading such guest of honor as has been previously chosen in accordance with his official rank, passes through the corridor to the State dining-room. The place of the President's wife in the dinner procession is in the rear of it, accompanied by such guest of honor as his rank has previously established for the place, great regard being paid to the selection. The President does not sit at the head of the table when State dinners are given, but in the middle, with his wife directly on the opposite side. This is a rule of decided convenience. It magnifies the especial places of honor on the right and left of the President and his wife by contiguity, and it leaves the ends of the table open for other places of honor for those whose rank entitles them to the respective positions. No guest at a State dinner takes his seat until after the President and his wife have taken theirs. When a State dinner is over the President's wife makes the first move to end it.

Presidential Courtesies.—A very pretty custom, which has grown into favor of late years, is the extension of a White House dinner to the new and incoming President and his family. This blends courtesy with convenience, for it enables the outgoing and incoming functionaries to talk over the matters that concern the inauguration, and especially to arrange a program for the luncheon, which the incoming President extends to his friends in the White House after he has taken the oath of office and returned from the Capitol. On such occasion the outgoing President is the guest of honor; but if he, either by pre-arrangement or for other cause, cannot be present, he simply escorts the incoming President to the White House and there bids a formal adieu.

Cabinet Dinners.—It is customary for officers of the Cabinet to give a course of dinners during the season, but they do not begin until after the President has given his State dinner in their honor. Their dinners are then extended, as nearly as may be, in the order in which the Cabinet officers would succeed, under the law, to the Presidency in case the President or Vice-President were removed by death or otherwise. Sometimes the Vice-President chooses to give a dinner in honor of the Cabinet. In such case, it is given before any of the dinners extended by Cabinet officers. It should be understood that dinners by the Vice-President and the Cabinet officers are by no means compulsory under the rules of etiquette, for their salaries hardly admit of the expenditure, and the Congress does not appropriate for such purpose. However, when they are wealthy, and the expense is no hardship such dinner occasions become the custom. The President may accept an invitation to a Cabinet dinner, and he may also accept an invitation from a friend, but custom seems to suggest that his presence shall be limited to dinners in the White House only. Perhaps this suggestion is helped along because such a limitation is imperative in the case of dinners given by the Diplomatic Corps, for he is forbidden by law to accept hospitalities under a foreign flag or auspices.

General Dinner Etiquette.—The most puzzling thing in Washington official and social life is a proper order of precedence on dining occasions, for be it known that precedence is insisted upon, or, at least, regarded as the proper thing in unofficial as well as official circles. In official circles the difficulty can be in part met by omitting one or more guests whose rank is likely to clash with that of others. This, as we have seen, is particularly the case with dinners given by Ambassadors and Ministers. At unofficial dinners, when there is doubt as to rank, the host or hostess may submit the list of guests, together with a table plan, to some such authority as a White House secretary or State Department, for their solution of the question of rank. Attendance at all dinners should be prompt. No one has a right to keep guests waiting by tardy arrival. Bachelor dinners are given through the medium of a chaperon, who inspects the list of proposed guests, issues the invitations, and is on hand to receive the guests. If the dinner is not given at the entertainer's house, but at a café or hotel, the guests, especially if young, meet at the chaperon's house and are escorted by her to the dining place.

At unofficial dinners pairs for escort to table are made by writing ladies' names on slips, endorsing them with the male name, and handing them to the proper male party. Should the gentleman find the lady assigned unknown to him, he may ask the host or hostess for an introduction, or, if that be inconvenient, may introduce himself. At informal luncheons or breakfasts, guests are not expected to remain long after the affair ends, but if such affair be in honor of any special guest it is proper to wait till he or she make a move to go. Should a guest have occasion to leave before the repast is ended, he or she should explain to the hostess, and leave in a very quiet manner. There should be no remarks at a repast about dishes, courses or service. It is far better to pretend to partake of the courses, regardless of personal dislikes. A guest need not object to having his wineglass filled, for its filling imposes no obligation on him to partake of it. Walking or visiting costumes are proper at formal breakfasts or luncheons, and ladies need not remove hats.

Driving Etiquette.—When starting for a drive, the President must enter the carriage first, no matter who his companion may be. After entering he must take the right-hand seat. Any other official of the United States must reverse this rule of etiquette. As between the President's wife and a third person in a carriage, she is entitled to the seat at his left. Third or other parties take the opposite seat.

Presidential Address.—How to address the President and Vice-President early became a subject of interesting, if not heated, controversy. It was finally agreed that a simple address was all that was needed, *i. e.*, "To the President of the United States"; or, omitting the words United States, "To the President." This in a written communication, but in oral address, as a greeting, "Mr. President" is all that is necessary. So, the Vice-President should be addressed as "Mr. Vice-

President." In all cases of doubt as to etiquette, official or social, the President may refer the matter in doubt to the State Department for solution. Requests for Presidential interviews or receptions should be addressed to the President's private secretary. When the President is walking or driving in public he should be saluted with a bow when he is recognized. Etiquette requires that the bow shall be returned.

General Official Calls.—These are not the subject of rigid rules, yet such as exist should be subscribed to for the sake of polite ease and all-round convenience. The President's wife is exempt from the duty of a first caller, but she is entitled to a first call from every one, whether native or foreign, if the rules of formality are fully respected. The wife of an ex-President visiting the Capital should make her first call at the White House, which call will be returned by the wife of the President the next day, or within a very few days. Defeated Presidential candidates are expected to make their first calls on the President, in case they visit the Capital. The opening of each reception season is usually signalized by a call of the wife of the Vice-President upon the wife of the President. Any courtesy extended by an outgoing Vice-President and his wife to those coming into office, is returned by the latter in the shape of a formal call. The Vice-President's wife must return all calls made upon her by members of the Supreme Court or Cabinet, and so also she must recognize by calls those whose invitations she has accepted to receptions or dinners. She is always at liberty to make purely personal calls. Cabinet ladies must make first calls, at a season's opening, on the wives of the President, Vice-President, members of the Supreme Court and Senators. Wives of Ambassadors are entitled to first calls of a season from ladies of the Cabinet, Judiciary, Senate and House. Calls made upon the Cabinet, which it is impossible to return in person, may be returned by appropriate cards, but when a Cabinet official has accepted an invitation to a dinner or reception, courtesy requires a personal call in return within a day or two. Wives of Presidents, Vice-Presidents and Ambassadors receive first calls of the season from wives of all members of the Supreme Court. Wives of Speakers of the House of Representatives are expected to make first calls of the season on wives of Presidents, Vice-Presidents, Cabinet officials, Justices of the Supreme Court and Ambassadors. When there are no women connected with an Embassy, no calls, official or unofficial, should be made by ladies. The wife of a newly-appointed Chief Justice is entitled to first calls from wives of the other justices, Cabinet officers, Senators and Members of the House. Wives of newly-appointed Justices call first on wives of Chief Justices and Associate Justices. Wives of Senators make first calls on wives of Presidents, Vice-Presidents and Speakers of the House. Wives of newly-elected Senators and Members of the House make first calls on wives of members of either legislative branch, whose elections preceded those of their husband.

White House Calls.—Wives of Cabinet officers, Chief and Associate Justices, Senators and Members of the House must make first calls of the season on wives of Presidents. First calls of the season must be made at the White House, at the first of January reception, by the Diplomatic Corps. Other functionaries of the Government may select the same date for their first calls of the season. In making a White House call, a single card should be left with the doorkeeper, whose contents are entered in a book kept for the purpose. White House calls of an evening are out of place, except by most intimate friends or upon invitation. Distinguished foreigners, on arrival in Washington, pay their first calls at the White House. The President returns no such calls unless the caller be a reigning sovereign at home.

Ambassadors' Credentials.—When an Ambassador or Minister arrives he sends a copy of his credentials to the Secretary of State, and encloses a copy of his presentation address to the President. A day is fixed for his formal presentation. On that day, the Ambassador or Minister, in full diplomatic dress, and accompanied by the Secretary of State, visits the President at the White House, and the presentation formalities are held. Such diplomats then make first calls on the other foreign representatives who have presented their credentials. At the beginning of each season there is an interchange of calls among Ambassadors, in the order of rank. New Ambassadors, after their White House calls, extend them to Members of the Cabinet, Supreme Court and Senate. Minor foreign representatives, such as secretaries and attaches of Legations, subscribe to the same calling rules as their superiors. Calls of respect for invitations to White House dinners are usually made within three days. This rule applies to both men and women, and whether in response to a formal dinner invitaton, or to a luncheon, breakfast, tea or theatre party. It is usual in Washington for persons in social position to have regular days for receiving. It is etiquette to observe these carefully, so as to prevent intrusiveness. Strangers in the Capital may call with propriety at the homes of Cabinet officials, Senators and Representatives, on their regular reception days.

Official and Other Cards.—Except in case of age or other inability, cards are left in person. Cards by mail should be inscribed with P. P. C.—*Pour prendre congé,* "To take leave," and all cards should accompany the name with the address, even if the latter be only temporary. Cards should be engraved. Official cards designating the place, bear only the official title, as "The Vice-President," "The Secretary of State," "The German Ambassador," "The Swedish Minister," etc. As with writing, so in addressing cards for dinners, the title only being enough. A card turned at the corner indicates that it has been left in person, and if creased in the middle, that the call represents the entire family. When there is a gentleman in the home called upon, a married woman leaves also one of her husband's cards. This is considered etiquette, even if her own card bears her husband's name. Two cards, one for a mother and one for a daughter, may be left when they are the occupants of a home. Cards left at hotels should bear on the corner the name of the persons for whom they are intended. Persons in mourning send black-bordered cards. Mothers and daughters may with propriety join their names on the same card.

Introductions.—See INTRODUCTIONS AND SALUTATIONS, *post.*

Reception Days.—In official and social life in Washington, reception days are in order from January 1 until the beginning of the Lenten season, but dinners are in order as long as the Congress remains in session. Certain classes of society have their days to receive. These are fixed by no arbitrary rule, but by an understanding which embodies convenience and geography. Thus, barring all exceptions, the at-homes of families of the Justices of the Supreme Court, and of residents on Capitol Hill, and of H Street, Northwest, are on Mondays.

The Speaker and Members of the House, together with residents of K Street, Northwest, keep open house on Tuesdays.

Wives of the Vice-President, Cabinet officers, and the residents of Massachusetts Avenue, Northwest, are expected to receive on the afternoon of Wednesdays.

On Thursdays, the wives of Senators and of residents of I Street, Northwest, are expected to receive.

Friday is reception day for residents of F and G Streets, West End, and it is also the general calling day for those who hold no official rank.

Saturday is an informal reception day at the White House, and by the residents of Connecticut Avenue and in and around Dupont Circle.

These receptions are designed to meet the impossibility of paying calls upon all who visit Washington, yet who are entitled to some recognition at the hands of those they have helped into official place, or whom they are expected to honor. In announcing their reception days, the card may state, when they are not for the season, the month of limitation, as *"Wednesdays in January."* It may also designate the hours.

Reception Costumes.—At all ordinary receptions a quiet dress for ladies is preferable. Ladies should not wear *décolleté* dresses to receptions or entertainments held before 6 o'clock p. m., nor should gentlemen wear evening suits until after that hour. Cloth and velvet dresses are *apropos* for calls, silks and satin for evenings. Calling costumes are in vogue for morning New Year calls at the White House. At White House or other receptions in the evening, bonnets are not in vogue. Diamond and jewelry displays are out of place except at evening receptions. *Décolleté* dresses are not in form at theatre parties.

State and Civic Etiquette.

Essentials.—It is not to be presumed that there is the same insistence on a definite code of etiquette at State capitals as at Washington; neither is there the same necessity, for society is not so cosmopolitan, officialdom is not so numerous, and official functions are not so comprehensive, not to say intricate. Besides, there are forty-five State capitals, each with its own ideas of the proprieties. There is, therefore, small opportunity for the adoption of a code of etiquette applicable to all.

Nevertheless it is essential that official and social life, even in the smallest capitals, or where functional occasions are modest and infrequent, should subscribe, for the sake of grace and comfort, to regulations accepted by all as proper, and susceptible of practice by all.

A Proper Code.—Regarding the State as a little nation, and its capital as a miniature Washington, whereat official executive, legislative and judicial procedure is not remote in form from that of the National Capital, one finds that the Governor, as chief executive, occupies a position analogous to the President. He is the "first gentleman" of the State, and is entitled, in his sphere, to the same deference, relatively, of course, that is paid to the Chief Executive of the nation. In a large sense, the etiquette that enters into and controls his functions is identical, or should be, with that which controls the President. He may receive his calls in somewhat the same order, and extend his receptions at appointed times and with due formalities. His cabinet may occupy the same relation to him that the National Cabinet does to the President, and he may recognize among its members the same order of precedence. At all official functions he would naturally recognize the position of the Chief Justice, and of the State judiciary in general, as similar in rank to that occupied by the national judiciary in relation to the President. The legislative branch would also fall into a place with respect to him akin to that which is assigned by custom to the national legislative branch with respect to the President. All this being so, there is, therefore, *mutatis mutandis,* "the scene being changed," but little need of laying down a State code of etiquette which would differ in few respects from that already given for the nation. To do so would be to repeat what has already been read, so far as essentials are concerned. When it comes to minor and inconsequential matters, not any code can be expected to embrace them, at least not so as to materially affect the conditions which regulate public life. And what is true of official life at State capitals, is also true of social life. If the latter is to be graceful, easy and comfortable, it must subscribe in sufficient measure to the very same rules we have seen operative in national circles. There will not, there cannot, be in the very nature of things the same intermingling of official and social rules of etiquette. State legislative sessions are brief. State functionaries, with few exceptions, do not become residents of the capitals. These and many similar facts, limit the number of public occasions, and correspondingly modify social rules, or, at least, relegate them, more or less, to the social world as distinguished from the official world. The purely social codes are found in the pages following.

Civic Etiquette.—This embraces what is understood by the etiquette of the municipality. Here again the conditions are analogous, as far as they go, to those already treated. The Mayor is the chief executive, is looked to as first in rank on public occasions, and as entitled to the marks of respect which citizens owe to their highest functionary. His receptions and official formalities recognize an order of precedence akin to that established for the State and nation. His direct aids, or department officials where they exist, are his cabinet. The justices of the local courts are entitled to their rank as social and official primates. The officers of the councils come next, followed by the members thereof, those of the senior or higher body ranking first. Still less than in the State, is there a blending of the official and social codes of etiquette, so that each estate is comparatively free to exercise its own volitions as to what it shall or shall not subscribe to. Nevertheless, the good old rule holds, that in every sphere of public activity, it is not only proper, but a duty, for all persons to study and observe those rules of conduct which conduce to official and social dignity and comfort. These are always true measures of gentility and breeding.

Introductions and Salutations.

Preliminary.—The forms of introduction vary with circumstances, but there is one rule which is well-nigh universal, and that is that the person who performs the ceremony of introduction should be well assured that it will be agreeable to the parties introduced. There are times when the party doing the introducing may, from his or her general standing, or from his or her intimacy with the parties to be introduced, presume that the ceremony will prove agreeable. But these times are few in number, and should always be classed among the exceptions to a rule.

Assurance.—The best way to assure oneself that an introduction will prove agreeable, is to consult quietly and unostentatiously the party to be introduced as to whether he or she would like to meet Mr. or Mrs. So and So. It might be added, "who is a friend of mine." Then consult in the same way the proposed recipient of the introduction, as to whether it would be agreeable to have introduced Mr. or Mrs. So and So. If the responses in both instances are favorable, one may proceed unhesitatingly with the ceremony, for there can then be little risk of your being thrown open to the charge that you have proceeded in haste, or erred in judgment, or neglected polite rules.

Endorsement.—The reason of the above rule of etiquette is not far to seek. An introduction implies to a greater or less extent an endorsement by the party performing it of the general character or, at least, social standing, of the parties introduced, and the responsibility of such endorsement is heightened if the parties introduced be of opposite sexes, for then the consequences of an introduction may be far different from those likely to ensue when the sexes are the same. If, in respect to an introduction, an error is committed, it is better to err on the safe side. In the instance of a host or hostess who is called upon to introduce a new arrival at a company, the mere fact of invitation may pass as a guarantee of social standing.

Deference in Introduction.—Where the introduction is simply between two persons, and there are no hampering or modifying conditions, it is proper to present the one of lower station to the one of higher, but great care should be exercised in drawing this distinction, where there is nothing like title or office to point the way. Youth should always be presented to age. A gentleman should always be introduced to a lady. This deferential procedure is not an imperative law, but a rule of politeness whose observance contributes to social ease and comfort, and whose breach may open the way to criticism.

Forms of Introduction.—It is difficult to lay down an iron-clad formula of introduction. Perhaps it is well that a certain degree of elasticity should exist, provided the true spirit of introduction be preserved and the general amenities be subscribed to. Thus, the introducer may say with a slight bow and an indicative motion of the right hand, "Miss or Mrs. —— allow (or permit) me to introduce (or present) to you my friend Mr. ——." If two gentlemen are introduced, the curter form of "Mr. —— I make you acquainted with Mr. ——," will answer just as well. Some persons insist upon an interchange of names, as Mr. S——, Mr. R——; Mr. R——, Mr. S——; but this is unnecessary, except for the purpose of making the names entirely clear, a motive much to be appreciated, for of all the defects of an American introduction that is the most exasperating which does not leave the parties introduced in full and exact possession of each other's surnames. With the above formalities the work of the introducer is finished, unless, with the object of making matters more agreeable, he or she sees fit to clinch the ceremony with a casual remark as to some distinguishing feature of either party's status or career, as, for instance, "Miss R—— is, you know, Mr. S——, the authoress of ——" (mention the work) or, "Mr. P—— is, as you may know, rector of —— church," or "our late representative at ——."

Company Introductions.—If it become necessary to introduce a new arrival to an assembled company, the formula may be abbreviated into mere mention of the names of the respective parties, as "Mr. S——, Mr. P——" (the new arrival).

Further Formalities.—The etiquette of an introduction must now be taken up by the parties introduced. There should be an acknowledgment of the courtesy by both parties, either by a polite bow, or by such an expression as "It pleases me to meet you," or "I am glad to make your acquaintance," or "I am delighted to know you." Any equivalent recognition will do. Then, to avoid all show of coldness or indifference, and to manifest cordiality, a moment's conversation, or a few casual remarks, are in place, if the opportunity prove propitious. But this should never be indulged in to the neglect of other social functions. Trust to time to complete an introduction by a social chat, or by such other evidences of cordiality as may be deemed *apropos.* Hand-shaking at the time of introduction is falling into disuse, except among those of the older school of politeness. It is, perhaps, to be regretted that such is the case, unless the occasion should render it inconvenient.

Titles in Introduction.—It is well to observe these, particularly on the part of the person introduced. If an official, use the title "Honorable"; if a minister use the title "Reverend"; if an instructor, use the title, "Professor"; if a medical man, "Doctor"; if an officer, "General" or "Admiral," etc. Of course these become more important as, with foreigners, the title passes beyond the honorary stage, and comes to signify a status which involves considerations of rank and property strange to a republic.

General Considerations.—Street introductions should be made quietly and with as little formality as the best rules will permit of. A wife may introduce her husband by stating the fact that he is her husband, and *vice versa.* So, mothers and fathers may say that the person introduced is "my daughter," or "my son." "Scraping an acquaintance," or a self-introduction, is sometimes justified between the same sexes, if on a long car or steamer journey, or where there is something akin to warrant, as having heard one speak in public, or having read the book of an author, or having felt, from an observation of conversation, deportment or countenance, that acquaintance would prove congenial and profitable. But in these instances one should feel sure of his ground, and should avoid all appearance of solicitation.

After an introduction, it is the privilege of a lady to renew the acquaintance. Should a host or hostess at a party overlook the duty of introduction, or not have time to perform it, guests may introduce one another; but it is better that the duty be assigned to an assistant.

Fathers and mothers are at liberty to introduce members of their family without having previously asked permission.

Mere formal introductions do not require a subsequent recognition. All persons are their own masters and mistresses in this respect; but the greatest caution should be observed, lest the neglected person should construe the conduct of the other as a "cut direct."

An acceptable introduction may be accomplished by card or letter, but in this respect great discrimination should be exercised as to wording, for such form of introduction generally takes a business turn, or implies other than mere social acquaintance. In fact, the recipient of an introduction by letter or card is under no obligation to extend social civilities.

Of Salutations.—These form an important essential of etiquette. Nothing typifies a gentleman or lady with such promptitude and accuracy as his or her manner of greeting. Forms differ in different countries, but all indicate breeding and the spontaneous interest one feels in another.

The Bow.—The bow polite is the commonest form of salutation in America. It may be a simple bow, or a bow accompanied with a "Good morning," "Good evening," "How are you," "Glad to see you," or other expressions of salutatory import. The bow polite is not a mere jerk of the head, but a graceful inclination of the neck and upper part of the body. When persons are on opposite sides of the street, or otherwise remote, about as pretty a salutation as a gentleman can make is that of the Army, a mere raising of the open hand to the rim of the hat. The bow is a telegraph between parties, bearing a message of genial and friendly feeling. La Fontaine calls it "a note drawn at sight, which you are bound to honor when presented." Let it always be accompanied with a smile, or some pleasing facial expression.

The Hat.—When a hat is worn by a gentleman it becomes an important factor in fashioning a bow. It should by all means be tipped when saluting a lady, and the modern insistence and custom is that it should be raised entirely from the head. The same rule holds when one gentleman bows to another who happens to be in a lady's company. In the country, where the custom is to bow to everyone you pass, it is not necessary to remove the hat; but of this you may rest assured, that even in the country you will intuitively raise your hat in bowing to passing ladies, so much does politeness become a part of one's nature when sedulously practiced.

Says a writer: "The bow implies recognition, and since it is a lady's privilege to first recognize a gentleman acquaintance, she should be the first to bow." But here the classic adage finds application, "In matters of taste let there be no disputing." No lady will object to a first bow from a gentleman, unless she has made up her mind to "cut" him. On the contrary, she will feel, in his precedence, a sense of admonition, and will be reminded to do better next time.

Hand-Shaking.—A second and important form of salutation is the hand-shake. This greeting implies a greater intimacy and closer friendship than the more formal bow. In this country, and for this purpose, the right hand is universally used. and it must be ungloved, especially on the part of a gentleman. When conditions are such as that it is inconvenient or impossible to unglove the hand, it is proper to say: "Excuse my glove." This condition often happens, as when a lady has just put on her gloves for departure, or when she has not yet had time to remove them, or when persons meet on the street. In many of these respects, an apology for a glove may become needless, since it will be apparent to anyone of good sense that the impossible or inconvenient should not be insisted upon. There is no need of an apology on the part of a lady wearing kid, silk, or other light gloves.

The Hand-Shake in General.—A gentleman should not shake a lady's hand unless she first extends hers. The hand-shake should always be hearty. A listless, cold hand extension or contact is repellant. But there need not be such an extension as that from a catapult, nor a grip or squeeze sufficient to make one cry aloud with pain. There should be as much absence of impetuosity, as much grace, and as much consideration in hand extension and shaking as in making a bow. As already stated, the hand-shaking observance does not extend, as a rule, beyond the range of a certain degree of intimacy, very young or elderly people being an exception. Casual introductions, as at parties and balls, do not call for hand-shaking. A gentleman should rise from his seat in shaking hands. A lady need not arise unless she sees fit. A host or hostess should, as a rule, extend the hand to departing guests, epecially if an invitation to return becomes a part of the compliment. Never offer the fingers, or part of the hand to be shaken; offer the whole hand for embrace, and shake with a complimentary warmth. A single up and down motion will do. Avoid, by all means, the pump-handle shake. Let the embrace of hands be brief. To hold on and keep shaking while the compliments of the occasion are passing, or while conversation is carried on, is embarrassing, to say the least.

Etiquette of Kissing.—A third form of American salutation is the kiss. The custom is open to much discussion for sanitary reasons, but it is so fixed in the social world, and implies such a warmth and cordiality of sentiment, that its etiquette should be well studied. The kiss of the hand, as a mark of respect, still prevalent in England, is nearly out of fashion in this country; but undeservedly so, for it implies all that any other kiss does, as a mere form of greeting, and is, moreover, not open to the sanitary objection raised against the lip or cheek osculation.

When to Kiss.—It is agreed that the kiss has its much-needed limitations in the social world. It is strongly argued that its entire banishment would prove a propriety and a relief. It is such an evidence of earnest love, so sacred in its meaning, that its indulgence is not proper except on the most endeared and private occasions. But even those who argue thus strenuously must at times swallow their own persuasions, for if the promiscuous or mere salutatory kiss finds itself tabooed, the kiss of relationship will ever clamor for recognition, as well as the kiss of close friendship. And then what is to be said of the kiss of lovers, that endearing, spontaneous thing which has meaning far beyond formality, and is not subject to any code of rules? All in all, kissing should be limited to relations and close intimates, and to meetings and receptions which are not of a public nature, for kissing is a demonstrative act and attractive of attention. Members of a family may greet one another with kisses, or separate with them. The habit of administering a kiss to children by strangers is reprehensible. We suppose that women will ever indulge the custom of kissing one another, but this should never be done on the street, or conspicuously and gushingly; neither should it be carried further, as between parties, than a close intimacy, long separation, or a regard for age, will permit. At no time, whatever the occasion, or however appropriate the kiss may be, should sight be lost of the physiological dangers of a lip to lip, or even the cheek, kiss. Better transfer it to the forehead, or revert to the good old-time mark of respect and esteem, an osculatory touch of the hand.

Etiquette of Conversation.

A Desirable Accomplishment.—To be able to converse easily and pleasingly is "a consummation devoutly to be wished" by all. The ability to gain and hold the attention of a social circle through the medium of choice speech is desirable, but this is not conversation, which is a higher art, and one more conducive to the pleasures and profits of social intercourse. The talker, pure and simple, is not necessarily a good conversationalist. He is apt to monopolize situations, to disregard the mutuality which strict sociability both implies and demands. Fortunately the existence of a social estate, wherein elegant conversation is so desirable, provides the best school for the acquisition of the art, and no one need despair of success if intimacy with those who understand and practice the art is sought. In that school one quickly learns how readily conversation makes friends; how it interchanges information; how it promotes and tunes the spirits of a friendly company.

First Essentials.—In order to converse well one should have fair knowledge of current themes; should clarify thoughts before attempting expression; should cultivate clear, apt and grammatical language; should acquire the art of self-possession; should never be dissuaded from perseverance by failures; and, above all, should never remit study of the rules which polite verbal intercourse establishes and accepts.

A Prime Rule.—Look up the meaning of the word "conversation," and never forget it, especially that part of it which implies that you shall, as a matter of courtesy, divide the time with your listener.

Naturalness is a prime quality of the art. Only by being natural, can one be just to himself or herself. Thus only can voice, attitude, gesture, facial play, have their full and free expression, and the speaker be truly earnest, eloquent and forceful, without artificiality and staginess.

No Display.—If one possesses special accomplishments, they need not be forwardly displayed to the discouragement of others, but dispensed so as to interest and encourage the timid and less accomplished.

Tact.—Tact is essential to agreeable conversation. Never start a subject till you have ascertained something of the tastes and inclinations of the listener. If you introduce a subject your listener knows nothing about, you place both him and yourself at a disadvantage, for you will have to face a frown or stare, and he will celebrate his turn to speak with sullen silence, or inconsequential blather. A person of tact will never introduce a subject which may prove distasteful to others in the company, nor will he attempt to discuss politics, nationality or religion. Perhaps the greatest conversational tact is shown by seeking to make the opposite party take the initiative.

Standard Rules. One's own exploits should not be the subject of polite conversation. They savor of ostentation.

Speak clearly, distinctly and deliberately, but never vociferously, in company.

Ever remember that "comparisons are odious," especially if they relate to anyone present in a company.

Narration of experiences, if one has traveled or enjoyed exceptional opportunities, affords an interesting part of conversation, but such a subject should be solicited, or come about in an unobtrusive way.

Trifling conversation is insipid and distasteful. Nothing wearies quicker.

One's disappointments, servants, physical ailments or toilet details, should not be discussed. If touched upon, let it be very briefly and incidentally.

Flattery is offensive as a rule. So is personalism, either of speech or tone.

Should a second or third person join your group, put them *en rapport* with your topic.

Always keep yourself self-possessed, cool and collected. Strive to use chaste and respectful language. Overlook, rather than allude to, slight mistakes and inaccuracies. The social circle is not an arena for criticism or dispute, but a field for amusement, entertainment and instruction.

Don't forget that listening attentively and interestedly is deferential, and a prime part of elegant conversation. Two talking at once is a magpie exhibition.

Never talk "over the heads" of people. However high your range of thought or speech, it should not be regarded as a condescension to regulate it to the average level of the company.

Encourage children to open their minds in conversation. Seeds of the art cannot be planted too early.

Return of compliments is always in place, but profuse compliments are apt to lose propriety and force.

Patience is an essential in conversation. If one hesitates for a word, or is confused as to thought, give time for the party to collect himself, so as to say the right thing in the right way. This trait will secure for you the everlasting regard of the speaker.

In general conversation, stick to your own language. Avoid puns or slang. A very learned man, used to technical terms, will not, if well bred, rattle them off in ordinary conversation, to the dismay and disgust of all present, but will either explain them or use plain English substitutes.

Whispered conversation in company is vulgar, except on the rarest occasions. It excites suspicion in others.

An excellent rule of tact is to adroitly change the subject when conversation threatens to become distasteful.

Gentlemen make an awful mistake in presuming that nothing but "small talk" is suitable for conversation with ladies. They enjoy dignified subjects and language as well as others, and it is a compliment to them to keep conversation above the level of triviality.

Some Special "Dont's."—Don't forget that words of just and true commendation differ from those of sheer flattery.

Don't speak disrespectfully of the absent, nor of a city, town or locality you may be visiting.

Don't contribute by word or action to scandalmongering.

Don't indulge in long stories. Make them short, witty and apropos.

Don't carry on a prying conversation into affairs that etiquette regards as private or secret.

Don't give way to bashfulness, nor sit in a corner. Sitting or standing, face your companion when conversing.

Don't make your family a familiar topic, nor exalt it when mentioned.

Calls and Cards.

Kind and Character.—The etiquette of calling is reduced to a finer art than most any other branch of the code. Many occasions invite them; for instance, there may be ceremonial calls, calls of congratulation, calls of condolence, calls of friendship. The purely friendly call need not be severely formal. It should not be forgotten that the usual formal call of cities has the same object in view, to wit, the cultivation of acquaintance, as the good old-fashioned country visit. So it embodies, or should, the same sentiment of respect.

Division of Calls.—Calls are regulated as to time to suit the convenience of both parties, as much as possible, and naturally subdivide into morning calls and evening calls, to which may be added New-Year calls, the latter a rapidly growing feature of social life.

The Morning Call.—This does not necessarily imply before noon. In fact it is not deemed precisely *en règle* to either call or visit before twelve or one o'clock, for morning hours are generally busy ones in a houshold, and dinner is seldom over before one o'clock. But polite society is so thoughtful in this recpect, that it even makes allowance for an afternoon nap, and hence stretches the time of a morning call all the way from one to five o'clock in the afternoon. Morning calls should be of limited length, say from fifteen to thirty minutes, and should be shortened in case another caller comes. Conversation should consist of thoughtful inquiries as to the home, and the mention of other cheerful subjects. In calling, hand your card to the one who answers the door, if the same be not the party you wish to see. Be careful to regulate your time so as to avoid a possible lunch or dinner hour. Be sure to leave a card if the persons you call upon are not at home. On leaving, rise at once. This is the signal for the host or hostess to rise. You will probably be accompanied to the door, or a servant will be sent for to show you out. You regulate your formal leave-taking by the above conditions. You need not say you only came to make a call. That fact will be understood in polite society. Ladies do not remove their bonnets or hats in making formal calls.

All formal calls should be made in the morning, unless certain evenings are set apart for receiving.

If a lady and gentleman call together, she should give the leaving signal by rising.

Evening Calls.—These are usually made between 8 and 9 p. m., and may with propriety extend for an hour. As to the use of cards and the forms of greetings, the rules of morning calls prevail. Sometimes a hostess signalizes an evening call by setting out refreshments, but this is optional. In rural districts, where distances are long, it is usual to dispense refreshments, and then the call may begin at an earlier and end at a later hour. Occasions which render a call proper are numberless, but the privilege of calling should not be abused. Ladies do not call socially on gentlemen. They may call professionally. A lady can with propriety invite another lady to make a call with her. Gentlemen should not do so.

In calling on the sick do not ask to be admitted to the sick room. Wait for an invitation.

If you find a person upon whom you call dressed to go out, cut your call very short. If the going-out means to make a train, postpone your call till another time.

New-Year Calls.—This class of calls is growing more fashionable yearly, notwithstanding the fact that they have given rise at times to certain social abuses, such as intrusions and impositions upon the hospitality of the season, mostly by gay young men whose exuberance proved too much for their discretion. All this is, however, being gradually corrected, and the New-Year call is gradually becoming what is should be, a subdued, cautious and unexceptionable custom, implying the renewal of old acquaintances, the laying aside of resentments, the cementing of new friendships, and the freshening of life memories.

Announcements.—In many cities and towns it is regarded as the proper thing for ladies, especially, to make public announcement through newspapers that they intend to receive on New Year's Day. This is very convenient, for it makes sure of both intention and address. But it does not preclude the use of cards, if the intention is to make the visiting list limited and exclusive.

Calling Hours for New Year.—New-Year calls, unless otherwise stated, begin about ten o'clock a. m. and may continue until eleven p. m., but it is the privilege of the host or hostess to conclude the time earlier than eleven o'clock, if fatigued, or the run of calls seems to be over. If the design of the caller is to make the call very brief, it is not necessary to remove wraps or overclothing. From fifteen to twenty minutes is sufficient length for a brief call. But if refreshments are part of the calling ceremony, wraps, coats, gloves, etc., should be removed. Gloves, if light, are optionally retained. Cards are invariably used on such occasions, and they may bear, in addition to name and residence, a friendly sentiment, such as "Happy New Year," "Many happy returns of the day," etc. Refreshments may consist of sandwiches, salads, fruits, cakes and other delicatessen, and they are usually partaken of standing. In rural or suburban sections, many of the formalities of New-Year calls are very properly relaxed. It is sometimes convenient for several ladies to join at the house of one of them for receiving New-Year calls. So, either ladies or gentlemen may unite as callers in a single carriage.

Calling Cards.—These, as will be seen from the illustration, or from their discussion under National Etiquette and Art of Correspondence, are of great variety as to form and substance, and in their design and preparation much is left to individual taste. As a rule, they should be engraved. Their uses will be found under the respective sub-divisions of Etiquette.

General Calling Rules.—A gentleman may not call on a lady on the strength of an introduction alone. He may solicit the privilege, but must wait for an invitation, or a favorable response to his solicitation.

If a lady extends an invitation to call, but sets no time, a gentleman may presume that the lady is not in earnest.

When a time is mentioned for a call, it is rude not to be on hand promptly.

Callers should not take strangers with them, unless assured that their introduction will be favorably received.

On making a first call a card should be dispensed for each lady occupant of the house, but a single card will answer for all the daughters of a household.

In calling, all the rules as to the etiquette of conversation should be observed.

Newcomers in a neighborhood are not expected to make first calls.

Gloves and hats may be retained during formal calls, if the caller be a lady.

Impedimenta, such as dogs, small children, etc., should not embarrass formal calls.

While waiting for a hostess, do not inspect articles in the room, but wait patiently for her appearance.

Callers should never draw out their leave-taking to an inordinate length.

To look at your watch during a call is vulgar, unless in the making of a train or keeping another engagement, and then the action should be accompanied with an apology.

When a caller is met with the announcement "engaged" or "not at home," there should be no further persistency in the call. The leaving of a card fills the bill.

Etiquette of Dinners and Luncheons.

Invitations.—The etiquette of official dinner invitations has already been treated. In purely social invitations, whether to dinner or luncheon, one should make choice of such friends as will be likely to prove congenial to each other. If the entertainment be extended to relatives, this rule need not be inflexibly observed, for such occasions often afford opportunity for happy removal of misunderstandings and estrangements.

Dining Hours.—These vary with circumstances. With working-classes, or in rural districts, dinners near the middle of the day are proper. As the circle grows more fashionable, the dinner hour may be later, and may be with propriety set at as late an hour as 7 o'clock p. m. Such a thing as a belated arrival at a dinner should never occur, yet out of respect for the possibility of such an occurrence, the postponement of a dinner hour for a short time is proper.

Time of Invitations.—Dinner or luncheon invitations should be timely. They are very properly sent out from three to ten days in advance of the occasion, and in the name of the host and hostess. They are usually mailed, and time should be given for a reply, which is very necessary in making up a final dinner list. The form may be

Mr. and Mrs. Wakeman
Request the pleasure of Mr. and Mrs.
Smith's company at dinner
on Monday, November 3, at 4 p. m.

Duty of Guests.—On arriving at the entertainer's house, a guest should first pay his or her respects to the hostess; if a stranger, he should ask for an introduction. In the arrangement of guests for table attendance there is a wide field for the exercise of tact on the part of hosts and hostesses. Male and female pairs should be selected with reference to age, compatibility, dignity, and other qualities essential to congeniality. In marching to the table, they should observe the order designated.

Foods.—No matter what the status of hosts or hostesses, they generally do their best to credit a dinner occasion. They should use their best linen and dishes, and provide an abundance and variety of foods. If a course dinner, the run may well be: Soup, fish, roast, vegetables, salads, dessert, fruit and nuts. Course dinners imply a participation, however slight, in each of the courses, at least there should be no out-and-out declination. Where there is no particular servantage, and no courses, but a good old-fashioned helping, after asking what you prefer, your choice of meats, or will you be helped to this or that, the guest may accept or refuse at will.

Seating.—In proceeding to the dining-room, the host takes his seat at the foot of the table, placing the lady chosen to accompany him on his right. The hostess takes her seat at the head of the table, placing her escort on her right, as the highest seat of honor, the second seat of honor being on her left. Ladies are, as a rule, seated first, and then the gentlemen.

Luncheons.—These are popular social affairs, especially among ladies, and serve many of the purposes of the more elaborate dinner. Invitation may be by card or verbally. The set-out need not be elaborate, yet should be substantial. If given in honor of some distinguished person, they may be elaborate, both as to service and dress. Ladies' hats and bonnets are not removed at luncheons, nor restaurant meals, nor casual meals at hotels.

Table Etiquette.

Blending of Rules.—The rules for table etiquette are so generally applicable, as that it is impossible, at least needless, to attempt their subdivision into classes suitable for different dining occasions. A blending of their treatment will not interfere with a full understanding of them, and their adaptation to official, social and family table conduct. Let it not be forgotten that the strictly household table should be a school of polite conduct, whose graduates are capable of reflecting credit on their domestic breeding.

Carving and Helping.—At a formal dinner, all carving will have been done outside of the dining-room. At an informal, or family dinner, where the food is placed upon the table, the host is expected to attend to the carving, the acquisition of which art is most desirable by every gentleman. The carving knife should be well sharpened in advance. The carver naturally becomes the helper, and he should indicate for whom he destines the first plate, having previously asked what cut is preferred. Intermediate parties at table may assist in passing a plate, but when it arrives at the person indicated it should be kept.

Conversation.—A tactful host or hostess will endeavor to introduce, or give turn to, topics of conversation such as will prove agreeable to all, and conduce to general participation and all-round entertainment. There is sometimes more meat in mental table entertainment than in the material service.

Napkins.—Never tuck your napkin under the chin. Spread it across the lap. Dinner napkins should not be folded after use, but laid in loose form upon the table. Napkins should not be starched. Paper napkins are for luncheons, lawn-parties, picnics, etc.

Knife and Fork.—Cut food with the knife, but convey it to the mouth with the fork in modest quantities at a time, and holding it in the right hand. In the eating of pastry, salads and side-dishes, only the fork should be used.

Spoon and Fingers.—In using the spoon, as in soups, do not attempt to engulf a spoonful at a time, but take a modest quantity in the spoon and sip it so as to avoid a hissing sound. Some prefer a spoon for the eating of oranges, melons, etc., but there is little of convenience in this, and no hard rule of etiquette. Fingers come into play in eating celery, asparagus, the harder kinds of pickles, and cheese, but in general their use is not sanctioned.

Leaving Table.—It is the duty of the hostess to give the sign for leaving the table. If the dinner is formal, the ladies rise first, leaving the gentlemen seated, and to their own volitions, but unless a smoke or informal chat is on the tapis, they should follow the ladies.

Table Numbers.—Dinner tables should never be overcrowded. Ten or twelve invitations will serve every purpose of social entertainment for one time. Few dining-rooms and few hostesses are equal to the proper accommodation of large numbers. Far better two pleasing, refined dinners at proper intervals, than one overcrowded and tumultuous entertainment.

Fastidiousness.—Nothing is ruder than to smell of food or taste it with a view to ascertaining its quality or how it is cooked. Polite circles take it for granted that both hostess and cooks have done their best to have foods appear in a relishable state.

Self-Helping.—When dishes are passed for helping, let each one help himself or herself before passing them on to another. This may have a vein of selfishness in it, but it is convenient, and serves the general intent of the host or hostess.

The Family Meal.—Family refinement is nowhere more in evidence than at the table. Children should take meals with parents, in order to learn breeding and ease. Of course, the conversation of children should be restrained, but more with a view to directing it than to suppressing it. Loud talking at table is vulgar. So is fidgetiness, tatooing on the table, whispering, coughing, blowing the nose, reaching lengthily for what is wanted, leaning on the table, flourishing knife or fork, etc. Do not talk with the mouth full of food.

Rules in Brief.—In asking for a second helping, which is unusual at course dinners, do not put knife and fork on your plate, but lay them on a side table, or piece of bread or hold them.

If offensive matter be found in the food, remove it so as not to attract notice.

Eat slowly and without lip-smacking. Never insist upon a guest partaking of food which is refused. Strive to keep the tablecloth as clean as possible. Do not drink tea or coffee from the saucer. Don't reprove servants in the presence of company.

When seated beside a stranger at table an introduction is not necessary.

Salt, pepper and condiments should be amply provided at meals of any kind.

A meal-time should be of ample length to satisfy all. Less than thirty minutes is too short a time to partake of a healthful meal.

Sit upright at table. A sprawling position, or one too near or too far from the table, is not to be tolerated.

If the saying of grace is customary, await it with respect.

Never have altercations with waiters. It pays to treat them politely.

Do not discuss your infirmities at table, especially if they relate to indigestion, or other consequences due to foods.

Do not pick your teeth at table.

In cutting butter always use the butter-knife.

Do not project your feet under the table to the discomfort of an opposite party.

Do not eject bones, fruit pits or grape skins from your mouth, but press them onto your fork or spoon and place them on the side of your plate.

If a private table is left before the rest have finished, the act should be accompanied with an apology.

In helping, never overload a plate. A second helping is preferable.

The paring and quartering of fruit or the stripping of green corn from the cob, are not essentials to etiquette, except on very formal occasions.

Party and Ball Etiquette.

What is Implied.—When an entertainment, socially extended, exceeds the dimensions of a dinner or luncheon party, or the limits of an ordinary reception, it assumes the proportion and formula of a party or ball, to which certain well-recognized rules of etiquette apply. Either of them, or rather both, for sometimes they can with difficulty be distinguished in form and function, imply music and the dance.

Management.—The ball may be either public or private. In both space becomes a first consideration. The public ball, almost as a matter of course, requires a large, well-ventilated space, which is usually procurable only in the halls of buildings erected for the purpose. The private ball is better suited to the dimensions of ordinary dwellings, where a single large room, or two or more rooms thrown together, may furnish the requisite space. In any event, a rectangular space is preferable to a square space for the arrangement of music and dancers. Flooring should be stripped of carpet, and prepared for the occasion by some application, such as wax or stain, calculated to make gliding motion easy. A decoration of flowers on mantels or in corners, contributes greatly to ball-room effects. There should be convenient side or reception rooms for guests, with facilities for the accommodation of the sexes separately, and for the separation and card-marking of wraps, hats and other laid-off clothing. Such a room, or rooms, should be well provided with toilet articles. A good orchestra is an essential appointment of the public, or any large party or ball. In the smaller or private ball, the piano is a usual resort, but, if possible, it should be accompanied by a violin, banjo, cornet, clarionet or other suitable instrument.

The Public Ball.—The details of a public ball are usually left in the hands of a committee or board of managers. They regulate the questions of time and place, and, for the most part, the choice of guests. They send out the invitations, which are, as a rule, directed only to gentlemen, some two or three weeks in advance of the date of the ball. An invited gentleman is expected to invite the lady of his choice. A gentleman should respond to an invitation within a day or two, accepting or declining. Such invitations and responses need not follow any stereotyped form, but should be simple, clear and direct. An invitation of a gentleman to his lady may say:

October 9, 1904.

Miss Yates:

May I have the pleasure of your company to a ball to be held at ———— on Tuesday evening, October 20, at nine o'clock.

Yours very respectfully,
James R. Mercer.

She may reply, saying:

October 11, 1904.

Mr. James R. Mercer:

It will afford me pleasure to accompany you to the ball at the ———— on the evening of October 20, at the hour stated.

Jennie D. Yates.

If the invitation is declined, the reply may run:

October 11, 1904.

Mr. James R. Mercer:

In reply to your kind invitation to the ball at ———— on October 20, inst., I regret to say that a previous engagement (state any real cause for refusal) *will deprive me of the pleasure of accompanying you.*

Jennie D. Yates.

The Private Ball.—Management of the private ball remains in the hands of the persons giving it. Invitations should be sent out two to three weeks in advance by mail or messenger and should be accepted or declined within a day or two. The forms vary, but may run somewhat thus:

Mr. and Mrs. Rodgers extend their compliments to Mr. and Mrs. Pardee, and request the pleasure of their company at a ball on Thursday evening, November 6, at eight o'clock.

Whether this invitation is accepted or refused, the reply should be prompt and in complimentary terms. Invitations to a family, all of whom you desire to attend, may be made to the parents separately, and to daughters and to sons. The foregoing form will suffice, names being changed. Replies should come from each. It is customary to place on the lower left-hand corner of private ball invitations the letters R. S. V. P.—reply if you please—but omission of these presupposes that the invited person knows enough about etiquette to reply without any suggestion.

General Rules.—In settling the number of attendants at a ball, it is best to over-count than to under-count, for there will be some declinations. Moreover, some of the attendants will wish to rest while others are dancing.

Guests should appear at balls promptly at the time set.

Invited guests to balls should proceed to pay their respects to host and hostess at once.

For private balls, dances should be arranged so as to equalize in number quadrilles, polkas and waltzes, and these should be interspersed with a fair proportion of other dances. At large balls, a printed list of dances is provided on cards, with blank spaces for the names of partners. Most balls open with a march.

An introduction of a lady to a gentleman in order to dance together is not necessarily an introduction based on friendship, and permanent.

Refreshments usually follow the adjournment of a ball. These may be light or heavy, according to the means of the host or hostess. Public or large balls are, as a rule, succeeded by suppers, and frequently the invitation is to "A ball and supper." If refreshments or suppers come on at midnight, as is frequently, and very properly, the case, dancing is frequently resumed.

Guests should be paired for refreshment or supper rooms, and duly escorted, as at dinners.

When a dance ends, a gentleman should thank his partner for the pleasure she has afforded him, and escort her to a seat.

The gentleman who has invited a lady to accompany him to a ball escorts her thither, presents her to the hostess and participates in the first dance with her.

A lady should furnish a good reason, such as a previous engagement, unacquaintance with the dance, or something equivalent, for refusing to dance with a gentleman when invited.

Many dances can be participated in by those unacquainted with them, a graceful carriage and attention to figures being the only requisites demanded of novices.

Coquetry, conversation foreign to the occasion, and undue contact of persons, are entirely out of place in dancing.

A lady without an attendant should be provided with one by the host or hostess.

Dancing engagements should not be forgotten or broken. It leads to embarrassment, if not disgust.

Do not cling to one partner through several dances. It is an evidence of selfishness and bad taste.

A bow to a partner is proper at the beginning of a dance; also at the end, when the gentleman expresses his pleasure and escorts his lady to a seat.

Ball room acquaintances need not be kept up, except at the option of the parties.

Misunderstandings at balls should be referred to the host or hostess, or to the master of ceremonies.

A gentleman should never insist upon a lady dancing who is tired out.

A gentleman should ask permission before taking a seat beside a lady.

When a gentleman calls to escort a lady to a ball, a present of a bouquet or bunch of flowers is a nice compliment.

At a public ball, a lady may refuse an introduction to a gentleman; but at a private ball she should accept an introduction.

Visiting Etiquette.

Notice.—When a visit is contemplated, no matter how intimate the friendship or relationship, it should be proposed by a note, asking whether it will be agreeable on a certain day named, or, if not, to fix a convenient day. No visit should be paid unless one is perfectly certain that it will be agreeable to the visited.

Invitations.—A written invitation to pay a visit should state a time, and may very properly limit the length of the visit by some such expression as, "Come on July 9 and spend a week with me," "Come prepared to spend the day," etc. On the ending of visits, both parties are in the habit of saying, "Come and see me," "Come soon again," "Come and spend the day (or week)," etc. These are mere formalities. But even if genuine, they lack the essence of a true invitation, which is to fix a time for a visit.

If no time limit is fixed for a visit, one should never tax the hospitality of a friend by lengthy stay.

General Rules.—A visitor, to be welcome must be considerate of the time of the visited, the household routine, etc., so as to avoid jar. This is especially necessary as to hours of eating, sleeping, and other home regulations.

Propositions to walk, ride or otherwise pass the time, should always be entered into with spirit by a visitor, since they are, as a rule, designed for his or her enjoyment.

Many visitors take along sewing, knitting or some work they can do while chatting. This is a good old-fashioned habit, but a still better way of indulging this propensity is to engage in making some specimen of handiwork for a present to your hostess.

An excellent rule is for a visitor to tell a host how long the visit will last. This gives opportunity for laying out plans for work, provisions and entertainment.

Visitors should turn deaf ears to private family affairs, and never carry unpleasant developments beyond the threshold.

A visitor should not visit another party, unless the guest be invited. So, invitation to a family to pay a visit should include its guests.

Should a visitor break or damage an article in a friend's house, he or she should replace it.

Should sickness or other unexpected visitation come into the home of a guest, the visitor should lend a helping hand, or terminate the visit.

Unless children or servants are included in an invitation, a visitor should not take them along.

Privileges extended to a visitor by a hostess should not be extended to another by the visitor, without consent.

After a visitor has returned home, he or she should embrace an early opportunity to write thanks and express the pleasure enjoyed.

All expenses incurred by hosts on account of a visitor, for such as baggage expressage, washing, etc., should be returned, or, at least, proffered.

Young lady visitors should not receive the company of gentlemen while visiting without the consent of the host or hostess.

The religious regulations of a houshold visited should always be properly respected.

Hosts and hostesses will, as a matter of course, give guests pleasant rooms and convenient toilet facilities, see them to the station when leaving, invite a return, and do all that is possible to make them feel that they have been welcome, and that their visit has been an episode in their lives worthy of long remembrance.

Dress and Toilet.

Dress Colors.—Polite society requires that there shall be certain observances as to dress and toilet. A prime dress regulation relates to the complexion. There are blondes, brunettes, and shades of complexion between them, all of which require an adaptation of color in dress. Blondes may harmonize color with complexion by a choice of violet or blue shades; various tints of greens; a slight intermixture of whites; neutrals, as gray, fawn or drab. Brunettes may so harmonize by the use of black, white, and the higher colors, such as yellow, orange, scarlet and green. Yellow complexions become dark, poppy and yellow colors. Sallow skins are improved by dark greens and reds. A very ruddy face admits of reddish or blue tints, as does a very pale face. So, the various dress colors themselves must harmonize, not only as to gowns but to hats. Blue harmonizes with various colors, such as black, brown, straw, white, orange, drab and salmon. Black harmonizes with white, lilac, scarlet, pink, drab, buff, orange. Crimson harmonizes with drab, purple, orange and corn. Green harmonizes with blue, crimson, gold, yellow, orange. Lilac harmonizes with crimson, black, white, gold, yellow, corn, cherry and scarlet. Purple harmonizes with scarlet, blue, yellow, black, gold, orange, corn. Red harmonizes with white, gray, orange, gold, black. Scarlet harmonizes with black and white, and the various shades of blues. White harmonizes with brown, pink, cherry, crimson, scarlet. Yellow harmonizes with red, crimson, black, purple, blue and violet.

Day and Night Colors.—These should be considered, especially with a view to calls, balls, receptions, etc. Some colors which are dressy and becoming in daylight are otherwise at night. Crimson which becomes a complexion in daylight, may lose its effects under gas or electric light. The same is true of white and yellow. Scarlets, oranges and light browns improve in effect at night. The yellows and purples which become daylight wear are obscured by gaslight, and the same is true of the lilacs and dark greens.

Dress Styles.—Good, stylish dress does not imply extravagant outlay. Adaptation of dress to person includes position in life as well as personal charm. A good, becoming dress gives one ease of manner and contributes to agreeableness of disposition. Even the homely can make themselves acceptable by an agreeable manner and becoming costume, while a good figure, sweet face, pure complexion, charming voice and fine carriage, may be spoiled by unbecoming dress. The proper dress is fashioned for the time, season and occasion. A lady, when going a shopping should not wear her most expensive and highly ornamented garments. A young lady in business should not wear a drawing-room garb. A gentleman does not wear a dress-suit to his office. Ladies should study dress styles and effects for themselves. Dressmakers are not always infallible in these respects. Above all, ladies should be independent of styles adopted by friends, for, if a lady of a certain complexion, stature and rotundity, adopts a style because another lady of opposite complexion, stature and rotundity looks well in it, she may only make herself look hideous. Over-dressing is vulgar, no matter what the age or circumstances. It invites criticism and contributes to vanity, especially with the young. It is taxatious on parents. We are judged by strangers on the strength of personal appearance, and that judgment is more severe when one is overdressed than when the costume is plain and even common. These rules apply to gentlemen as well as ladies. Age becomes an important matter in dressing. Complexions and figures change. Circumstances grow different. Dress styles should correspondingly change, as a rule, become more subdued. Dress proportionately. A fine bonnet should not top out a shabby dress, nor *vice versa.* A becoming dress must have respect to occasion. An opera dress is out of place at church, a reception dress at market, a theatre dress at the typewriters' desk. Tidy, neat dressing is a requisite for home-life as well as for outside polite life. Husbands are displeased with untidy dressing on the part of wives, and wives with shabby dressing on the part of husbands. Besides, the example for children should not be lost sight of.

Dress for Occasions.—An evening dress for entertainments should be of as rich material and as elegantly made as can be afforded. Colors should harmonize, and an excessively low neck should be avoided. Elderly ladies look well in satins, velvets, crepons and brocades. Jewelry, such as diamonds and pearls, is permissible.

Dressgoods for young ladies should be of light fabrics, prettily trimmed, but never too close fitting.

Ball dresses should be of light material, bright color, fashionably made. Jewelry is out of place, but flowers are becoming.

Opera dresses should be of elegant material and make, with well-matched colors. Hair ornamented with flowers is very becoming. Bonnets and hats are out of place, unless cars or walking are necessary for a return home. *Décolleté* dressing is not proper for operas or theatres, except for occupants of boxes.

Morning dresses may be plainly made of inexpensive materials. Jewelry is out of place.

A walking dress should be of brown, black or gray, cut short, and relieved by some bright colors. Good, strong shoes, and gloves to match the dress color are proper.

A traveling dress is made plain, short, of smooth-surfaced, neutral tinted material, and with plenty of pockets. The traveling accompaniments are a proper wrap for the season and a satchel containing necessary changes and toilet articles.

Picnic and excursion dresses should be plainly made of a fabric suited to the season. Wash materials are proper for summer, and woolen serges or tweeds for spring and autumn.

The Toilette.—The morning wash may well extend to the entire body. The hands, with free use of soap, are the only requisites. The water of a basin is sufficient. In drying use the towel frictionally. Cold or lukewarm water should be used. Sun baths are excellent for the health. A drink of warm water before breakfast washes out the stomach, and a few brisk and deep inhalations assure a supply of fresh air to the lungs.

Breath.—Care for the breath is a necessary toilet precaution. Of course the cause should be gotten at and removed, but a temporary expedient may be the taking in the mornings of some of the many preparations for offensive breaths, kept in the drug stores or readily prepared.

Face.—Cosmetics for beautifying the skin should be used with caution, or avoided altogether. Exercise, diet, the bath, frictional applications, are the main reliances for the removal of complexional troubles.

Hands.—When frequent washing and free use of soap, in connection with a brush, fail to keep the hands cleanly, recourse may be had to frequent washings in milk and water, with palm oil applications at night. Lime-water and lemon juice will remove tan. An application of acetic acid will remove warts, if their tips are first pared. Nails should be cut and dressed once a week.

Feet.—The feet should be washed daily, if much walking is done. Stockings should be changed two to three times a week. Bathing the feet in warm water saturated with alum is a preventive of chilblains. To prevent corns and bunions, wear easy fitting boots and shoes, with broad soles and heels.

Teeth.—Cleanse the teeth with a brush of medium stiffness in the mornings and after each meal. A plain dentrifice, such as powdered charcoal, conduces to whiteness. The removal of tartar, when the accumulation is great, and all questions of decay, should be left to the dentist.

Hair.—Appearance and general condition of the hair is all important. Hair should be washed and the scalp cleansed at frequent intervals and with regularity. Thus only can its natural glossy appearance be maintained. It should be brushed even more frequently than washed, and after washing should be thoroughly dried. Applications of oily substances are not required, except when there is great dryness of the hair and a tendency to harshness. The scalp should be kept clear of dandruff by an application of glycerine and perfumed water, or by the yolk of an egg beaten into warm water. Hair dyes should be avoided. Occasional clippings at the ends will prevent splitting. Hats should be of soft, ventilated material in order to prevent or postpone baldness. Lengthy beards are seldom becoming to gentlemen, unless the face be broad and full.

Other Habits.—Keep the nostrils clean by sniffing water into them during the morning ablutions, and then blowing vigorously. Eyes require a special cleansing of corner accumulations every morning. If wiped during the day let it be with a silk or soft handkerchief. Wash the inside of the ears every morning, and in order that inflammation and defect of hearing may be avoided, be sure to remove all accumulations of wax. A drop of sweet oil will soften the wax and make its removal easy. To preserve health and beauty, personal habits should be regular—retiring, rising, eating, bathing, exercising, bowel evacuation, etc.

On the Street.

Street etiquette is all important because there it means a display of culture on the spur of the moment, as it were. Should a lady, on meeting a gentleman on the street, stop, the gentleman should also stop for the passing of compliments. Should his business be urgent, he should break off the conversation with an apology.

In passing on the street, a lady bows, a gentleman lifts his hat, with a slight bow. It is not necessary for one to wait for the other to perform this courteous ceremony.

On a narrow street crossing, the lady precedes the gentleman. In a crowd the gentleman precedes the lady.

Ladies out of an evening should provide themselves with escorts, especially if the way be long or lonely.

It is impolite for ladies to talk or laugh boisterously on the street or in public conveyances, swing the arms or roughly elbow crowds.

In public conveyances gentleman, if young and physically strong, will rise and give seats to ladies, elderly persons or cripples. The act should be accompanied with a bow, or hand-pointing invitation, and should always be met with thanks.

A gentleman walking with a lady should carry, or offer to carry, her wraps, umbrella or packages.

Ladies should not seek to attract attention or form acquaintances on the street.

No one of good breeding ever stops to converse in the middle of the pavement. They should step to one side.

Gentlemen do not smoke when escorting or meeting a lady on the street, without her permission.

In crossing a street ladies do not raise their dresses with both hands.

A gentleman unacquainted with a lady may with propriety go to her assistance if she is in danger or embarrassed on the street. After he has aided her, he should bow and retire.

Strictly polite people are always solicitous of the comfort of others on the street or in conveyances.

In daylight a gentleman need not give a lady his arm unless she be elderly. But it is proper at night. Husband and wife may walk arm in arm.

A gentleman opens the street door and lets the lady enter first.

In walking on the street gentlemen and ladies should graduate their gaits and steps to suit each other.

Refined ladies never allow their dresses to trail on the streets, and this for hygienic, if for no other reasons.

In walking on the street, a gentleman gives the lady the house or protected side.

For gentlemen to stand on the street and ogle passing ladies is unpardonable, and may be criminal.

All persons, in passing on the street, should observe the "law of the road"—keep to the right.

Etiquette of Riding and Travel.

On Horseback.—A gentleman should assure himself that the horse selected for his lady companion is safe and sound.

He should examine saddle, girths and bridle, to see that they are sound and properly adjusted.

He then assists in the mounting, taking the horse by the rein with his left hand, and lowering his right for a rest for the lady's left foot. She will catch the horn or pommel of the saddle with her right hand, gather her skirt in her left, place her left foot on the gentleman's extended hand, and vault into the saddle, he, meanwhile, following her spring with support from his hand. He then sees that she is properly seated, and has the reins and whip in hand.

A gentleman rides to the right of a lady. When there are two, he rides to the right of both. When there is no horse-block, a gentleman assists his lady to dismount, by taking her left hand in his right, placing his left under her stirrup foot, and lowering her to the ground.

Carriage Riding.—In carriage riding a lady should enter the the carriage first. If there are two seats, the lady should have the right side of the seat facing the horses. It is the seat of honor, whether for ladies or gentlemen. In dismounting from a carriage, gentlemen precede the ladies, and assist them out. Single carriages should, for mounting purposes, have their right sides driven close to the curb or mounting block, and the horse turned to the left so as to spread the wheels. The lady then enters and takes a seat on the left, the gentleman following, taking a seat on the right or driving side. The carriage position is reversed on dismounting, but the gentleman alights first.

Fast driving when timid ladies are occupants of vehicles is out of place. All care should be taken to avoid accidents.

Travel.—There is a wide difference between an experienced and inexperienced traveler. The latter forgets and bungles everything, the former proceeds in an easy, orderly manner. Prerequisites of travel are choice of a route, a time-table, acquaintance with distances and stations, so as to save frequent questions. If you are going to have need of a sleeper, get your berth some days in advance. In traveling, take no unnecessary baggage, but be sure to have along what is needful. Select it with care, and with a view to distance, change of climate, object in view, etc. Have it packed in plenty of time for the start. Label all trunks. As hand-companions, have a traveling-bag with toilet articles, a dust-proof wrap, some magazines or books. Allow plenty of margin for starting-time. Better half an hour's wait at the depot, than a breathless scurry to make the train, or the disappointment of missing it. As soon as the car opens, enter it and get a choice of seats. Middle seats of a car are regarded as safest. If summer time take the shady side of the car. If you find coats and baggage in a seat, it is a sign that the person depositing them has thus signified that the seat is engaged. "One ticket, one seat," is the rule. Therefore you may expect a companion, either lady or gentleman. If your journey is brief, remain to yourself. If lenghty, and the companion not repulsive, a talking acquaintance may be formed for purposes of enlightenment as to your journey and matters akin to it. Be considerate of the comfort of others as to conduct. Do not insist on hoisted windows when others are affected by the draught. If you have occasion to eat on a train do so at or near a regular meal hour, if you have food along. Otherwise the station stoppages for meals or luncheons must regulate your meals. Traveling suits are essentials which have to be well studied. The material should be of plain serviceable material, not susceptible to soil or dust catching. Finery and jewelry are out of place on a train.

Courtship and Marriage.

Association.—In this country the sexes are free to mingle as acquaintances and in a social way. But when a young man neglects all others and begins to pay particular attention to one lady, she has reason to suppose that she is a particular object of his affections, even though he give no verbal expression to them for the time being. The situation becomes both interesting and serious, for if a man does not contemplate matrimony he has no right to limit his attentions to one lady. Neither has a lady a right to receive particular attention from a gentleman for whom she entertains no particular regard, for she may greatly injure his feelings, and put herself in a position to deter the approaches of other gentlemen.

Selections.—Encouragement of a gentleman by a lady should be based on the thought that she can return his affections. If she is at all tender of heart, and in earnest, she will, by her actions, at least, give him some hint of encouragement to continue his visits, press his suit, and eventually propose marriage without undergoing the humiliation of refusal. It is very important that neither party should make a mistake in the selection of a life partner. A rush into matrimony is almost always followed by discords and regrets, often by separations. Relations, influence of wealth, social position, nothing outside of the considerations of love and affection, considerately bestowed and reciprocated, should enter into and become elements of a choice of husband or wife. An unloved man or woman should not insist on marriage with one he or she loves.

Courtship Considerations.—This state of intimacy ought to be prolonged sufficiently for each party to study the other, as to elements of fitness for the marriage estate. Beside being a period for testing love and affection, it is also a time for the study of characteristics, which may or may not seriously affect life intercourse. Considerate, rational courtship leads to a quiet knowledge of individual peculiarities, to what to avoid and what to accept, to a revelation of health conditions, to the history, standing, occupation, and family connections of parties. No marriage between persons who have inherited disease, or who are nearly related should take place. Judicious courtship discovers all those things which are likely to dissuade from marriage, as well as all those things which are likely to contribute to happy married life. The test is worth going through deliberately and lengthily. "A long courtship, but a short engagement," is a wise adage.

Whom to Marry.—To be more specific as to choice, never complete it until sufficient knowledge of character, habit and disposition has been gathered.

Both parties should be of sufficient age, a man not less than twenty-two or twenty-five years of age; a woman not under twenty. Religious convictions ought to be the same, if possible. Piety and irreligion are not compatible. Health should not marry sickness, if constitutional. Good health is a fortune for both man and wife. Riches are not essential to mutual happiness. If there be a difference in social positions, which had better not be, the gentleman should be superior to the wife. The work of both man and wife should be congenial to both. Gentle, sweet, trusting dispositions are sadly mated with those that are haughty, overbearing and quarrelsome. People of medium size, complexion, and similar temperament may well marry. With a view to properly sized posterity, the very tall may well marry those very short of stature, and the very corpulent those who are thin and wiry. The red-haired and florid complexioned may well marry those of dark hair and brunette complexion. When eyes differ materially in color, a happy medium in children may be secured by marriage. Nervous people may well marry those of lymphatic turn; impulsive, the stoical; quick-motioned, the deliberate. Thin-faced people may well marry those of rotund faces; the prominent-nosed, the flat-nosed; the straight-haired the curly-haired.

Proposals.—A rigid form of proposal is out of the question, but it should come from the gentleman, and if verbal should be so much to the point as to admit of a decisive "Yes" or "No" from his intended. It may be by writing, which sometimes saves much embarrassment. He may even present his proposal on a slip of paper, and ask her to write a reply underneath. The saying of "Yes" is easy. The saying of "No" should never be curt or offensive; it should be accompanied by an explanation or reason, in justice to the gentleman's feelings, and as a palliative of his mistake.

Engaged.—Engaged couples should be considerate of one another. The gentleman should not intrude on the lady's family, but after announcement, should await their approaches. Engaged couples are expected to be found together at entertainments and social gatherings. It is presumed that engagement has taken place with consent of parents, who, in well-regulated fashionable society, make public the engagement of their daughters, and sometimes signalize the event with an entertainment. Members of the gentleman's family may then call on the family of his intended, or if living remote, may exchange courtesies by letter. The present of an engagement ring is apropos, but valuable gifts are out of place. Mere tokens of esteem are all that should supplement the gift of the ring. Engaged persons should never be too demonstrative or affectionate in public. Neither party should attempt to raise jealously in the other by their conduct; they should study the comfort and pleasure of each other as much as if married. The length of a gentleman's visits to his fiancée, should not be longer than those of the courtship period. Engaged persons should never isolate themselves from company, but maintain their usual social estate.

Marriage.—For forms of wedding invitations, see "Card Designs." After wedding invitations have been issued, the lady does not, as a rule, appear in public until the wedding day. Choice of bridesmaids, groomsmen, ushers and other assistants will in the meantime have been made, and preparation of the wedding trousseau, and necessary costumes completed. The wedding may be very quiet at home, or elaborate in church, according to taste and circumstances. A bride may have one or many bridesmaids or attendants. The groom similarly, but his leading man is supposed to attend to all minutiæ. Expenses of the officiating clergyman and for carriages, etc., fall upon the groom, those relating to the bride are generally borne by herself or parents. Invited guests bear their own expenses.

Costumes.—Brides may wear pure white, of silk or other material, and the same may have its effect changed, according to age, by the introduction of colors. Bridesmaids generally wear dresses to correspond. Guests do not wear black dresses.

Brides are married in traveling dress, if an immediate journey is intended. Gentlemen wear full-dress suits, or at least, white vests, neckties and gloves.

Church Weddings.—The clergyman is expected to be in waiting within the church rails. The bridegroom should arrive before the bride, and assist her from her carriage, if not waited upon by her parents or relatives. When the time for entering the church has arrived, the ushers advance up the aisle, followed by the groomsmen and bridesmaids in order. The groom comes next, bearing the bride's mother on his arm; and then the bride's father escorting the bride. At the altar the bride takes a place to the left of the groom, the assistants having swung right and left to make a place for them. The contract ceremony then begins. If a ring is required, the first bridesmaid will remove it from the bride's finger and hand it to the clergyman. Responses of the parties should be deliberate and firm, but not too loud. After the ceremony, congratulations are in order, extended first by the clergyman, then by the bride's parents, then by the grooms. The groom is first congratulated, and sometimes he is the only one congratulated, as having won the prize. In the order of procession back to the vestibule, the wife is escorted by her husband, and they go to the same carriage for their destination. Let it be understood that the above is only one of many forms approved in polite society for a church wedding. Many modern weddings are conducted without bridesmaids, bridegrooms or ushers, the only guests being parents and near relations, this is especially true of weddings at clergymen's houses and at home.

Society Debut.

Schoolgirls should never enter fashionable society. After a daughter graduates, a mother may announce her candidacy for the social world. A date is set, and invitations are extended for the occasion. Each gentleman is invited by separate card. Near friends usually send flowers to grace the occasion. A debutante's dress should be simple and tasteful. Tulle or plain white silk, with a train and flowers, constitute a very becoming dress for the occasion. She is the favored guest of the evening, and may join in the dances and amusements. When receiving, she stands at the left of her mother. Gentlemen are presented to her, but she is presented to ladies and elderly people. Guests briefly congratulate her on her début.

Escort and Duties.—She leads the procession to supper, escorted by a brother, or if none, by the father, other guests following in selected pairs. During her first season her calls are always made in company with her mother or a chaperon. She is not supposed to have a card of her own, nor to receive gentlemen's company without her mother's consent. She is expected to be observant of all good social rules, to do credit to her breeding, and to take advantage of her new opportunities, especially in the choice of companionship.

Anniversaries.

The anniversary event is intended to renew some happening of moment in the past. The occasions are many—births, weddings, joyful occasions, etc., not to mention events which are formally celebrated outside of the social world.

Of those socially observed, the wedding anniversary stands first. It may be plainly, but beautifully and touchingly, observed at home by the gathering of intimate and congenial friends, by gifts of flowers or other things, by a picnic or other outing. If more publicly celebrated, and by invited guests, the bride and groom, dressed if possible in their wedding dresses, stand and receive their guests and accept congratulations. They extend a supper, which may culminate in toasts and speeches. Even a dance, for the sake of good old times, is not out of order. Such occasions have received designations and meanings which add to their significance in the social world. Thus the

Paper Wedding celebration is held at the end of the first year of wedded life, and its characteristic is the presentation of articles made wholly of paper.

The Cotton Wedding celebrates the second marriage anniversary, the gifts being of cotton materials.

The Leather Wedding celebrates the third anniversary, when the gifts are of leather.

The Wooden Wedding celebrates the fifth anniversary, when gifts are of wood.

The Tin Wedding celebrates the tenth anniversary. This is usually a very merry occasion, and the gifts are of tin materials.

The Crystal Wedding celebrates the fifteenth anniversary, the presents being of glass.

The China Wedding celebrates the twentieth anniversary, when the presents are of china dishes, porcelain, bisque or other kindred materials.

The Silver Wedding celebrates the twenty-fifth anniversary. This is an important occasion, and the presents are of silver or articles with silver engraved mountings.

The Golden Wedding celebrates the fiftieth anniversary. It is a still more important occasion, for not many married people live to celebrate it. The gifts are of gold, or of golden lettered articles.

The Diamond Wedding celebrates the seventy-fifth year of married life. They are very rare, and if invitations have been sent out they are accompanied, as a rule, by the request to bring no presents.

Of other social anniversaries, such as birthdays, etc., they are usually informally celebrated; while of the public anniversaries, such as battles, etc., the ceremonies are at the disposal of supervising committees.

Church Etiquette.

No place is more worthy of proper regard than the church. Demeanor should be such as to become the place and occasion.

Strive to be prompt in attendance, that your entering may not disturb devotions.

On entering, always remove the hat. Do not leave until services are over, except departure be excusable.

During devotion, let the manners of all worshipers be quiet and subdued.

When services are over, do not rush out of church, but retire quietly.

An exchange of salutations with friends is allowable in the vestibule or outside, but they should be extended in a mild voice.

Never stand on the steps of a church to engage in conversation, while people are passing out.

Observe the church forms as to worship, no matter whether you are a member or not.

Strangers should be provided with books, and if unacquainted with the formula, the page or place should be pointed out by a communicant sitting next or near by.

Turning around in church to view those back of you, see a newcomer, or gaze at the choir, is not polite.

Funeral and Mourning Etiquette.

Of late years, burial and mourning customs have been much simplified, and have lost much of their forbidding character.

Ostentatious mourning is becoming obsolete.

A mourner may not neglect all attention to funeral details.

The era of the shroud has passed away. The dead are dressed in close imitation of life. Flowers, but not in profusion, may be placed in the casket.

The custom of watching with the dead is rapidly passing away, but it is usual for an intimate friend or two to remain overnight with the family.

Preparation of the body for the grave becomes the duty of the undertaker.

Crape is used to tell of death in a house. If an elderly person, black crape with a black tie is used; if a middle aged person, black crape with a white tie; if a young person, white crape with a white tie.

Callers wishing to enter the house of the dead should not ring the bell, unless they know it to be muffled. For the most part the hall, or outer door is left open, or ajar, that people may enter softly.

Pall-bearers are usually chosen—six or eight in number—from the relations or immediate friends of the family. The body of a young girl may be borne to the hearse by boy friends of her own age. Pall-bearers are notified of their selection, and are provided by the family with gloves of black and arm crape.

Friends call at the house of the dead, on hearing of the death, to offer services, but unless very intimate, or their services are required, they need not be seen by the bereaved. Those whose services are accepted, consult with the bereaved, help make funeral arrangements, engage the undertaker and receive friends.

The funeral director receives a list of those whom the family desire to attend them to the grave, that he may know how many carriages to order.

In cities, insertion of notice of death in the newspapers is sufficient invitation to attend a funeral, but special friends should be invited, lest the newspaper notice has escaped them.

In rural districts, persons are sent out to "warn" of the death; but this custom is passing away, since postal facilities afford a means of written notice of death.

When funerals are from the house, the family is supposed to have taken a last view of the remains before the people assemble. They are seated in an adjoining room, beyond observation, during the ceremonies by the clergyman.

Friends are always given opportunity to take a last look at the remains. Caskets are seldom opened at a church, unless friends have gathered there from a distance, or the funeral be that of a distinguished person.

The family of the dead, with the clergyman, precedes the procession from the home or church, and to the grave.

The profuse use of flowers, on funeral occasions, is being discouraged.

Military and society funerals are conducted according to regulation forms.

Mourning.—The mourning custom of the past required the widow to remain in private during a certain period after her husband's death, or else appear in deep mourning. This custom is no longer rigidly insisted upon.

A strict mourning costume consists of a black crape bonnet and veil, with black dress, but a silk crape veil may be substituted after the end of six months.

Eighteen months is considered a requisite time for a widow's mourning; but some never resume colors.

A husband's mourning suit for a dead wife is a black suit, necktie, gloves and craped hat. His period of mourning lasts for a year.

Mourning costume for parents or children may be put off at the end of a year.

All mourning costumes are subject to variations according to individual tastes and inclinations.

Persons of both sexes in mourning use black bordered cards, letter-paper and envelopes, except when the letters relate to business.

It is usual for friends to send cards of condolence to the family within a few days after the funeral. Letters of condolence are also in order as soon as the death is heard of.

Etiquette at the Telephone.

The constantly increasing use of the telephone in the home has brought about, as might naturally be expected, telephone etiquette, which should have an educational effect, and be interesting as well.

Telephone Invitations.—The telephone simply states that the occasion is there waiting, and it calls for a quick decision. There is no reading between the lines and no time to ask why and wherefore. It lacks the chilling dignity and importance that sometimes linger quite unintentionally about a note.

Mrs. Smith may call up Mr. Jones at his office at five and ask him to join a dinner party at eight, if he will be so good. Mr. Jones appreciates the frankness of the message, and if he has no engagement he will accept in nine cases out of ten because the invitation is impromptu, and people speedily learn that impromptu occasions are apt to be the most enjoyable.

At the same time he is quite free to decline politely if he wishes, and his declination will not have the weight of a written regret, for a written regret is nearly always chilling in its effect upon the recipient, no matter how carefully it may be worded.

General Messages.—As to messages that pass between women relating to their shopping trips, luncheons, matinees, drives and visits, the wires are kept busy in the residential districts all day long. Soon after breakfast the calls begin and they keep up until luncheon time, when the feminine world rests for a space and enjoys its favorite meal of the day.

Deaths, births and marriages are now announced in this way and congratulations and condolences are given over the wire.

Modern etiquette impresses the fact that one's personal affairs as a rule are a bore to other people, who have their own joys and sorrows to interest them. So that is another reason for the decline of letter writing.

Who Shall Message.—A message should never be sent by a servant except when it is necessary. Most fashionable women have secretaries nowadays, and it is part of this young woman's duties to send and receive messages between friends, always in the third person and with an explanatory word as to whom the message comes through.

Manner of Messages.—The time of messages sent and received is also recorded, and this is very necessary, for frequently misunderstandings may arise through seeming inattention to a call.

If Mrs. Jones calls up Mrs. Smith to ask how she is and if she can join her for a drive, the message, if not replied to at once, must be recorded and Mrs. Smith must at the first opportunity call up Mrs. Jones and express her regrets.

Care in Messaging.—The telephone used as a means of communication between friends must be used carefully and for this reason in every fashionable woman's sitting-room where her desk telephone may rest there is a book of record upon which calls sent and received are jotted down.

Calling has also been affected through the use of the telephone. Women are much too busy nowadays with their many affairs to spend time at the old game of paying calls.

They meet for luncheon, a drive or the theatre, together visit art exhibitions and concerts, meet at their tailor's and milliner's, go to teas and afternoon receptions, but the old round of calling for the purpose of leaving cards has become one of the forms adhered to chiefly by the old set.

One of the pleasantest ways to make up a quarrel is over the telephone. People never remain estranged for any length of time when each has a telephone. In a case like this a note would be absolutely impossible, but a tiny appealing "Hello" settles the matter with promptness and despatch.

The Code Universal.

All Should Know and Practice.—In the application of the foregoing rules of etiquette to special occasions, it must not be thought that the "Code Universal" has by any means been exhausted. By such code is meant that there are a thousand and one things which are agreed upon as rules of conduct, and by the unanimous consent of all enlightened and refined peoples, as essentials in their minglings, and without respect to rank, time or place. These ought to be the ever-familiar, unforgetable and instantly usable resources of every one. Indeed they sould be parts of ourselves—our very intuitions, as it were. Among those worthy particular mention are:

Always reserve the kindest words and sweetest smiles for your home.

Elderly persons and invalids are always entitled to the kindliest courtesy.

Do not turn a deaf ear to a tale of woe, but avoid icy indifference, and respond sympathetically.

Never make sport of infirmity; you may be stricken any hour.

Do not exaggerate in conversation. It is ruinous to social careers.

Never imitate the peculiarities of those who pass for distinguished. Be your own self.

Never speak unkindly to subordinates. It is demoralizing in shop and home.

When you have made a new acquaintance, don't spoil proper deference with undue familiarity.

Those faithful in a few things are the ones worthy to become rulers over many things.

Enter a room with a gentle tread. Never slam a door after you.

If you have occasion to pass between two persons engaged in conversation, first make an apology for the intrusion.

Irritation or excitement is out of place in case of accident. Your wits are then most welcome.

In walking with a lady, a gentleman should take the unprotected side; but when walking arm in arm it is necessary to make repeated changes.

When you give a letter to a friend for delivery to another friend, do not seal it.

Not to accept an apology when offered is bad taste, whether it change your opinion or not.

Enemies happening to meet at a friend's house should smother their animosity while there.

In writing for information, unless very intimate with the person addressed, always enclose a return stamp.

The practical joke is a thing to be played with caution. There is always danger of offence, if not of something worse.

An introduction for the purpose of asking a favor does not entitle you to further claim upon that person's attention.

Not to meet engagements on time is a habit that is sure to lead to criticism and loss of prestige.

You can never be so intimate with a friend as to warrant the greeting of him with a slap on the back.

Never visit the sick or poor in gay and expensive costume.

It is the height of rudeness to sit in a chair with your back to company or a person.

Return calls are always proper, and they should be made in reasonable time.

Never fail to recognize the courtesy of an offer of a seat in a car or parlor. A slight bow and an audible "thank you" are very gracious.

Borrowing money and neglecting to pay, soon crushes credit.

It is vulgar to question a child or servant about their private family affairs.

Failure to answer an invitation promptly may be construed as a slight or even insult.

It is vulgar to examine the cards in a card-basket unless invited to do so.

Offer of services to a lady needing attendance or assistance, is not to be construed as impertinence.

Sick calls should be returned as others, when health is restored.

Confidence should never be betrayed. Betrayal is worse than weakness; it is treachery.

Favors and hospitalities should be returned at the first favorable opportunity.

Who opens the letter of another that has come into his or her possession is a wretch, if not a criminal.

Strive to eradicate that awful habit of "forgetting" when entrusted with a missive or commission.

A bow to the general company is the proper thing when entering a room filled with people.

In social life the smallest observances of conduct frequently count for as much as the largest.

On leaving home, mingle departure with kind and hopeful words.

Laughter should ever be unfeigned and hearty, but never boisterous nor at another's misfortunes.

A promise with no intention of fulfillment is an unwarranted and vulgar deception.

Who performs well and speaks much of it is a boaster, and necessarily vulgar.

In making presents, do not expect a return. Otherwise, you are simply trading.

Who picks his teeth or cleans his nails in company invites instant and harsh criticism.

Every civil question should meet with a civil answer. Not to answer is contemptuous.

To talk to one with the intention that others shall hear is a vulgar way of showing off.

Who laughs at his own wit must fear that others will not appreciate it.

In relating news of doubtful credibility, do not make them your own, but give your authority.

To openly call attention to the features or figure of any one of a company is a breach of the proprieties.

Gifts made and favors received should not be referred to in society.

Bad company is far worse than none. Let all associations be good.

Memory of names is a great assistance to ease and comfort in society.

If a party errs in statement or grammar, it is better to not notice it than to run the risk of giving offence by correction.

Address children by their full Christian names. To "Master" and "Miss" them is icily formal, except before servants.

If you have met a friend once on a promenade and saluted him, it is not necessary to do more than bow or wave the hand on a second or third meeting.

In making headway through a crowd with a lady put yourself in the lead.

In company, converse in a language understood by all, if possible.

In going up stairs the gentleman precedes the lady, but follows her in coming down.

Argument in company is out of place. Differences in opinion may be stated freely, but attempts to convince should be avoided.

Insincerity should never be the constituent part of a compliment.

If you have been abroad and have occasion to refer to your travels, do so in a way that will not make others feel that you are boastful of your opportunities.

It is ill-bred to openly yawn in company, or put your foot on a table or chair.

When you enter a room, leave the door as you found it—open, if open; if closed, close it.

If husband and wife belong to different religious sects, they should alternate in their church attendance.

When one asks a favor and you cannot grant it, don't add harsh words to the disappointment.

No lady will accept other than a mere conventional gift—flowers, books, music, etc.—from a gentleman not her relative or affianced.

Speaking one's mind frankly and considerately is far different from offensively blurting out your sentiments.

A gentleman attendant of a lady is expected to defray expenses incurred socially.

Reference to absent persons should be by Mr. or Mrs., unless the familiarity is very close.

Wives should not speak of their husbands by their last names, without the use of Mr.; nor husbands of their wives by last name, without the use of Mrs.

When one is reading or writing, never peer over his or her shoulder.

In case of defect or deformity in any one present, never seem to notice it.

Acknowledge the acceptance of favors or civilities at the very first opportunity.

Be considerate of guests stopping with you. Let them have accommodation as nearly like what they are used to at home as is possible.

The easiest seats in the room should be surrendered to invalids and aged people.

It is horribly vulgar to allude to love matters in company.

Borrowed articles should never be loaned.

Don't poke a friend in the side when you want to speak to him or her. Never call attention by a pull or touch.

Don't address a new acquaintance by the Christian name till sufficient familiarity is established to warrant it, or unless requested.

The braggart of his own country when traveling abroad is not a fit representative of it.

Questions put to others of a company should not be answered by yourself.

In conversation with titled foreigners, address them by their titles. They are used to this at home.

It will spare mortifying scenes to break a marriage engagement by letter.

When a marriage engagement is broken, all letters and presents should be promptly returned.

A host or hostess at a party should, in a modest way, provide a partner for diffident ladies.

In conversation give breathing spells and times for replies to your addressees. Don't hold the floor indefinitely, even in narrative.

Shyness, inordinate blushing, and over self-consciousness in company are mortifying, and should be fought against with the utmost heroism.

Sniffling, sneezing, coughing, spitting should be suppressed in company; or, if that be impossible, make the act inconspicuous and use an apology.

Don't "tattoo' in company; nor play with book, paper or chain; nor bite nails; nor stroke chin or moustache; nor loll on your seat; nor overgesticulate; nor fidget.

It is surprising how an awkward attitude contributes to awkward speech, and *vice versa.*

Religious disputes are the most absurd of all differences of opinion.

Meet all members of a company with the same degree of cordiality.

Nothing warrants the "fidgets" when a caller overstays time. If you have an engagement to meet, say so, with an apology, and the call will seldom fail to end promptly and graciously.

Don't consult your timepiece when entertaining a caller.

Inquiries as to age are out of place, except when addressed to the old or young.

Never question a lady as to why she omitted to invite So and So to her entertainment.

The place of a hostess is in the room till the last guest has departed.

In visiting a church, it is deferential and Christian-like to observe its forms, whatever your sect.

Never punish a child for a fault when you are addicted to the same fault.

In both conversation and writing prefer clear Saxon words to long derivatives or foreign words or expressions.

When a lady has an escort, the attention of another is unnecessary and uncivil.

Speak to the point; that generally means, "Think twice before you speak once."

Don't gaze about you when speaking with a person. Look him or her in the face and thus give the full benefit of your intonation and interest.

Do not overlook quite young people in a company. Encourage them with polite attention, even if only casual.

A married lady may accept a present from a gentleman with whom she is well acquainted or who is a frequent visitor.

A gentleman attendant at a ball without a lady must consider himself at the disposal of the host or hostess.

Do not sit on the arm of a chair occupied by a lady, or place your arm on the back of her chair.

Only the bridegroom should be congratulated at a wedding. Wish the bride "much happiness."

Do not make your complaint to servants at a hotel. Make it to the proprietor.

Whistling in company is a most nerve-wrecking performance, and evidence of mental vacancy.

A long letter of condolence or a sermonizing missive, in case of affliction, is often more of an aggravation than a comfort.

Hats, canes, umbrellas and overclothing should be deposited in the hall, on the occasion of a call.

It is not the value of a gift which counts. The motive is the true criterion.

In giving to the poor, omit all show of condescension.

Army and Navy
of the United States

WITH PENSION LAWS
AND RATINGS

FROM THE REVOLUTION TO THE
SPANISH-AMERICAN WAR

With Hitherto Unpublished Records
of the Confederacy in War

Review of Field-Army *and* Militia Strength

PORTRAIT OF

Present *and* Coming Naval Strength

VALOR OF THE NATION BY LAND AND SEA

SECRET STORY OF THE CONFEDERACY IN WAR

The U. S. Military Academy
Admission, Qualification, Course of Study
U. S. Naval Academy
Admission, Qualification, Course of Study
Strength of Regular Army of U. S.
Organized Militia in the Several States
Pay Table of U. S. Army
Military Departments of U. S.
U. S. Navy, New Classification
Navy Yards and Naval Stations
Present Naval Strength
New Vessels Authorized by Congress
Pay Table of U. S. Navy
Pensioners Enrolled, Amounts Paid
Pension Laws and Ratings

Wars and Battles of the Nation

Battles of the Revolution
Battles of War of 1812
Navy of the Revolution
Naval Battles of War of 1812
Indian Wars
Battles of the Mexican War
Battles of the Civil War
Number of Men in Union Army, by States
Total Number of Troops called from Northern States, in Civil War
Whole Number of U. S. Troops Engaged in its Wars
Naval Battles of the Civil War
Strength of Volunteer Forces in Spanish-American War
Casualties in Union Army during the Civil War
Statistics of the Philippine War
Length and Cost of American Wars
The Navy in the Spanish-American War
Number of Troops Furnished by Each State of the Confederacy
Prices of Necessaries in Confederate States
Casualties in the Confederate Army
New and Interesting Records of the Confederacy in War

Nowhere so complete a record of our Martial Glory. Everything you want to know about the Wars of our Nation, its Battles, Leaders and Commanders. The countless volumes telling of National Prowess are here found in a Jeweled Digest precious to every lover of heroic deeds.

Army and Navy of the United States.

United States Military Academy.

Admission, Qualification, Course of Study.

The United States Military Academy is situated on the Hudson River. It was founded in 1802. Students are called cadets. Each United States Senator, each Congressional district, each Territory, including the District of Columbia, is entitled to send one student (cadet) to the Academy. Besides these, the President may appoint forty cadets at large.

Applications for admission must be made to the Senator from the State, or Representative of the Congressional district. Choice of an appointee is usually, but not necessarily, made after a competitive examination of applicants. The appointee must be between the ages of seventeen and twenty-two years, free from physical infirmity, and be able to pass an examination in reading, writing, spelling, arithmetic, grammar, geography and history of the United States.

His name is sent to the Secretary of War, who makes the appointment, if all things are satisfactory. The cadet is paid $609.56 a year. Academic duties begin September 1, and end June 1. The course is four years. From the middle of June to the end of August cadets live in camp under strict military instruction. They have but one leave of absence, and that at the end of their second year. The principal subjects taught are mathematics, French, drawing, drill of all arms of service, philosophy, chemistry, mineralogy, geology, electricity, history, law, Spanish, civil and military engineering, art and science of war, ordnance and gunnery, etc. Usual number of students about 425. Number graduated 1802-1904, 4,338. An annual Board of Visitors, representing the President, Senate and House of Representatives visits the Academy in June, and witnesses the graduating ceremonies. Examinations are held by the professors each January and June, and those found fit are promoted. On graduating, cadets are commissioned second lieutenants in the United States army.

United States Naval Academy.

Admission, Qualification, Course of Study.

The United States Naval Academy is situated at Annapolis, Md. It was founded in 1845. The number of midshipmen allowed is one for each Congressional district and Territory, one for the District of Columbia, and ten at large, the latter being appointed by the President. Applicants must apply to their Congressmen, and must reside in their districts. They must be not under fifteen nor over twenty years of age, physically sound and able to pass an examination in reading, writing, spelling, arithmetic, geography, grammar, United States history, world history, algebra through quadratics, plane geometry. Their names are sent to the Secretary of the Navy who appoints them to the Academy.

The Academy course is six years, the last two of which must be spent at sea. A midshipman's pay is $500 a year. After passing the necessary examination for admission, the midshipman is required to sign articles binding himself to the United States navy for eight years, including the time of probation at the Academy, unless sooner discharged. The Academy course is very thorough, and embraces every subject relating to naval warfare. The first naval grade is "Ensign."

REGULAR ARMY OF THE UNITED STATES, AND ORGANIZED MILITIA IN THE SEVERAL STATES.

[*From Adjutant General's Report.*]

STATES AND TERRITORIES.	COMMISSIONED OFFICERS.					ENLISTED MEN.				
	Cavalry.	Artillery	Infantry.	Other.[1]	Total.	Cavalry.	Artillery.	Infantry.	Other.[1]	Total.
Regular Army	468	355	1,107	556	2,486	12,154	10,883	34,034	8,598	65,669
Militia.										
Alabama	21	17	145	24	207	180	149	2,118	24	2,471
Arkansas	8	8	132	66	214	95	140	1,571	82	1,888
California	15		192	53	260	234		2,900	190	3,324
Colorado	11	1	52	21	85	151	53	896	50	1,150
Connecticut		9	155	15	179		115	2,262	53	2,430
Delaware			29	13	42			356	16	372
Florida		9	90	8	107		93	1,111	8	1,212
Georgia	38	25	230	14	307	441	355	3,634	26	4,456
Idaho			18	4	22			421	4	425
Illinois	34	12	334	75	455	386	172	6,225	339	7,122
Indiana		16	127	17	160		202	1,981	45	2,228
Iowa	3		182	26	211	43		2,258	106	2,407
Kansas		10	91	7	108		87	1,210	7	1,304
Kentucky		7	87	8	102		112	1,371	8	1,491
Louisiana	3	60	41	8	112	61	794	913	8	1,776
Maine			94	8	102			1,176	42	1,218
Maryland	3		117	8	128	63		1,544	24	1,631
Massachusetts	18	73	248	27	366	254	1,045	3,872	155	5,326
Michigan			161	14	175			3,506	14	3,520
Minnesota		9	120	21	150		155	1,877	24	2,056
Mississippi	13	27	88	13	141	109	267	1,064	13	1,453
Missouri		11	138	25	174		11	2,732	25	2,768
Montana		3		9	12		69		9	78
Nebraska	3	5	96	1	105	44	56	1,261	1	1,362
Nevada			7	1	8			180	1	141
New Hampshire	3	4	93	10	110	67	78	1,231	33	1,409
New Jersey	9	8	196	38	251	115	146	3,501	79	3,841
New York	24	65	680	84	853	358	1,090	12,287	459	14,194
North Carolina		1	137	18	156		23	1,618	18	1,659
North Dakota	7	3	49	10	69	48	56	568	17	689
Ohio	5	14	317	39	375	47	204	5,377	255	5,883
Oregon	6	4	77	10	97	117	69	1,113	10	1,309
Pennsylvania	19	17	638	50	724	239	201	9,108	174	9,722
Rhode Island	13	42	69	22	146	106	363	713	58	1,240
South Carolina	48	5	170	9	232	880	97	2,169	9	3,155
South Dakota	3	1			4	41	43			84
Tennessee			93	5	98			1,356	5	1,361
Texas	16	11	190	39	256	244	201	2,723	113	3,281
Utah	3	4	15	29	51	26	47	321	56	450
Vermont			52	5	57			752	21	773
Virginia	4	17	109	2	132	74	247	2,455	2	2,778
Washington	3	2	48	11	64	63	57	838	11	969
West Virginia			81	25	106			971	71	1,042
Wisconsin	3	4	171	9	187	56	55	2,616	9	2,736
Wyoming	3		26		29	50		308		358
Territories	8	1	162	26	197	116	11	1,947	35	2,109
District of Columbia			102	18	120			1,221	95	1,316
Total militia	347	505	6,449	945	8,246	4,708	6,863	99,592	2,804	113,967

---

[1] Includes general staff, signal corps, hospital and ambulance corps, naval brigade, cadet corps, etc.

PAY TABLE OF UNITED STATES ARMY.

The retiring age of officers of the army is sixty-four years. When an army officer is placed on the retired list his pay is, as a rule, reduced one-fourth, or 25 per cent. Non-commissioned army officers receive as pay from $18.00 to $45.00 a month, and privates $13.00 a month. To this has been added 20 per cent for officers and 10 per cent for privates serving beyond the country, as in the Philippines, Porto Rico, Hawaii, Cuba and Alaska.

RANK.	ANNUAL PAY FOR ACTIVE SERVICE.				
	First 5 Years.	Second 5 Years.	Third 5 Years.	Fourth 5 Years.	After 20 Years of Service.
Lieutenant-general	$11,000	10% increase.	20% increase.	30% increase.	40% increase.
Major-general	7,500	10% increase.	20% increase.	30% increase.	40% increase.
Brigadier-general	5,500	10% increase.	20% increase.	30% increase.	40% increase.
Colonel	3,500	$3,850	$4,200	$4,500	$4,500
Lieutenant-colonel	3,000	3,300	3,600	3,900	4,000
Major	2,500	2,750	3,000	3,250	3,500
Captain	1,800	1,980	2,160	2,340	2,520
Captain, mounted	2,000	2,200	2,400	2,600	2,800
First Lieutenant	1,500	1,650	1,800	1,950	2,100
First Lieutenant, mounted	1,600	1,760	1,920	2,080	2,240
Second Lieutenant	1,400	1,540	1,680	1,820	1,960
Second Lieutenant, mounted	1,500	1,650	1,800	1,950	2,100

Military Departments of the United States.

Army Headquarters.—Washington, D. C.

Atlantic Division. Embraces Departments of the East and Gulf. Headquarters, Governor's Island, New York.

Department of the East. Embraces New England, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, West Virginia, Virginia, Porto Rico. Headquarters, Governor's Island, New York.

Department of the Gulf. Embraces North and South Carolina, Tennessee, Georgia, Florida, Alabama, Mississippi. Headquarters, Atlanta, Ga.

Northern Division. Embraces Departments of the Lakes, Missouri and Dakota. Headquarters, St. Louis, Mo.

Department of the Lakes. Embraces Wisconsin, Michigan, Illinois, Indiana, Ohio and Kentucky. Headquarters, Chicago, Ill.

Department of the Missouri. Embraces Iowa, Nebraska, South Dakota, Wyoming (except Yellowstone Park), Kansas and Missouri. Headquarters, Omaha, Neb.

Department of Dakota. Embraces Minnesota, North Dakota, Montana and Yellowstone National Park. Headquarters, St. Paul, Minn.

Southwestern Division. Embraces Departments of Texas and Colorado. Headquarters, Oklahoma City, Okla.

Department of Texas. Embraces Texas, Louisiana, Arkansas, Indian Territory and Oklahoma. Headquarters, San Antonio, Texas.

Department of the Colorado. Embraces Colorado, Arizona and New Mexico. Headquarters, Denver, Colo.

Pacific Division. Embraces the Departments of California and the Columbia. Headquarters, San Francisco, Cal.

Department of California. Embraces California, Nevada and Hawaii. Headquarters, San Francisco, Cal.

Department of the Columbia. Embraces Washington, Oregon, Idaho and Alaska. Headquarters, Vancouver Barracks, Wash.

Division of the Philippines.—Headquarters at Manila, P. I. Embraces the Departments of Luzon, Visayas and Mindanao, consisting of all the Pacific islands ceded by Spain.

Department of Luzon. Embraces the island of Luzon and other northern Philippines. Headquarters at Manila.

Department of the Visayas. Embraces a series of islands south of Luzon. Headquarters at Iloilo.

Department of Mindanao. Includes all the remaining islands of the Philippine archipelago. Headquarters at Zamboanga.

Navy Yards and Naval Stations.

1. Brooklyn Navy Yard, Brooklyn, N. Y.
2. Charlestown Navy Yard, Boston, Mass.
3. Kittery Navy Yard, Portsmouth, N. H.
4. League Island Navy Yard, Philadelphia, Pa.
5. Mare Island Navy Yard, San Francisco, Cal.
6. Pensacola Navy Yard, Pensacola, Fla.
7. Portsmouth Navy Yard, near Norfolk, Va.
8. Washington City Navy Yard, Washington, D. C.
9. Puget Sound Navy Yard, Bremerton, Wash.

There are naval stations at Algiers, La.; New London, Conn.; Port Royal, S. C.; Bremerton, Wash.; Key West, Fla.; San Juan, Porto Rico; Havana, Cuba; Honolulu, H. I.; Cavite, Philippine Islands; a Torpedo Training Station at Yerba Buena Island, Cal.; and a Naval War College at Newport, R. I.

United States Navy, New Classification.

New Classification.—On June 7, 1901, President McKinley, in accordance with an Act of Congress of March 3, 1901, issued an order setting forth a new classification of the vessels of the United States Navy, on the basis of tons of displacement. According to this order the rating became as follows:

Vessels of First Rate.—This rate embraces men-of-war only, and of 8,000 tons displacement and over.

Vessels of Second Rate.—All men-of-war of 4,000 and under 8,000 tons displacement; and all converted auxiliary vessels of 6,000 tons displacement and over, except colliers, refrigerating ships, distilling ships, tank steamers, repair ships, hospital ships, and other ships built for special purposes.

Vessels of Third Rate.—All men-of-war of from 1,000 to 4,000 tons displacement; all converted and auxiliary vessels from 1,000 to 6,000 tons displacement; and all the vessels excepted above, under the heading "Vessels of Second Rate," provided they are of 4,000 tons displacement and over.

Vessels of Fourth Rate.—This rate to include all vessels that fall under a rated heading.

Unrated Vessels.—Vessels without rate are torpedo boats, torpedo-boat destroyers, receiving ships and sailing ships.

Commands of Vessels.—The same order of June 7, 1901, regulated the assignments of commands afloat as follows:

Admiral.—An admiral to the command of a fleet.

Rear-Admiral.—A rear-admiral to command a fleet or squadron.

Captain.—A captain to command a division, or a ship of the first or second rate, or an unrated ship.

Commander.—A commander to command a division, a ship of the second or third rate, or an unrated ship.

Lieutenant-Commander.—A lieutenant-commander to command a ship of the third or fourth rate, or an unrated ship.

Lieutenant.—A lieutenant to command a ship of the fourth rate, a torpedo-boat destroyer, torpedo boat, tug, tender or unrated ship.

Junior Lieutenant.—A lieutenant of junior grade to command a torpedo boat, tug, tender or unrated ship.

Ensign.—An ensign to command a torpedo boat, tug or unrated ship.

VESSELS OF THE UNITED STATES NAVY.

[Report of the Secretary of the Navy.]

1st C. B. S., first-class battleship; A. C., armored cruiser; P. C., protected cruiser; C., cruiser; U. P. C., unprotected cruiser; A. C., auxiliary cruiser; G. B., gunboat; M., monitor; D. T. M., double-turreted monitor; S. T. M., single-turreted monitor; T. B. D., torpedo-boat destroyer; T. B., torpedo boat; S. T. B., submarine torpedo boat; H. D. R., harbor defense ram; S., steel; I., iron; W., wood; Comp., composite material; To. Tu., torpedo tube.

NAME.	Type or Kind.	Material.	Length. Ft. In.	Draft. Ft. In.	Displacement. Tons.	Horse Power.	Speed. (Knots per Hour.)	GUNS.		Cost.
								Main Battery.	Secondary Battery.	
Alabama	1st C.B.S.	S.	368.0	23.6	11,565.	11,366	17.013	18	30	$2,650,000
Connecticut	1st C.B.S.	S.	450.0	24.6	16,000.	16,500	18.	24	30	4,212,000
Georgia	1st C.B.S.	S.	435.0	23.9	14,948.	19,000	19.	24	42	3,590,000
Idaho	1st C.B.S.	S.	375.0	24.8	13,000.	10,000	17.	20	32	2,999,500
Illinois	1st C.B.S.	S.	368.0	23.6	11,565.	12,898	17.449	18	28	2,595,000
Indiana	1st C.B.S.	S.	348.0	24.0	10,288.	9,738	15.547	16	29	3,063,000
Iowa	1st C.B.S.	S.	360.0	24.0	11,340.	12,105	17.087	18	30	3,010,000
Kansas	1st C.B.S.	S.	450.0	24.6	16,000.	16,500	18.	24	50	4,165,000
Kearsarge	1st C.B.S.	S.	368.0	23.6	11,540.	11,954	16.816	22	34	2,250,000
Kentucky	1st C.B.S.	S.	368.0	23.6	11,540.	12,318	16.897	22	38	2,250,000
Louisiana	1st C.B.S.	S.	450.0	24.6	16,000.	16,500	18.	24	50	3,990,000
Maine	1st C.B.S.	S.	388.0	23.6	12,300.	15,580	18.	20	24	2,885,000
Massachusetts	1st C.B.S.	S.	348.0	24.0	10,288.	10,415	16.21	16	34	3,063,000
Minnesota	1st C.B.S.	S.	450.0	24.6	16,000.	16,500	18.	24	50	4,110,000
Mississippi	1st C.B.S.	S.	375.0	24.8	13,000.	10,000	17.	20	32	2,999,500
Missouri	1st C.B.S.	S.	388.0	23.6	12,240.	16,000	18.	20	24	2,885,000
Nebraska	1st C.B.S.	S.	435.0	23.9	14,994.	19,000	19.	24	42	3,733,600
New Jersey	1st C.B.S.	S.	435.0	23.9	14,948.	19,000	19.	24	42	3,405,000
Ohio	1st C.B.S.	S.	388.0	23.6	12,508.	16,000	18.	20	24	2,899,000
Oregon	1st C.B.S.	S.	348.3¼	24.0	10,242.	11,111	16.79	16	30	3,222,810
Rhode Island	1st C.B.S.	S.	435.0	23.9	14,932.	19,000	19.	24	42	3,405,000
Vermont	1st C.B.S.	S.	450.0	24.6	16,000.	16,500	18.	24	50	4,179,000
Virginia	1st C.B.S.	S.	435.0	23.9	14,948.	19,000	19.	24	42	3,590,000
Wisconsin	1st C.B.S.	S.	368.1	23.6	11,564.	12,609	17.174	18	28	2,674,950
Texas	2d C. B. S.	S.	301.4	24.2¼	6,875.	8,610	17.8	8	22	2,500,000
Armored Cruisers.										
Brooklyn	A. C.	S.	400.6	24.0	9,215.	18,769	21.91	20	23	2,986,000
California	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,800,000
Colorado	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,780,000
Maryland	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,775,000
New York	A. C.	S.	380.6½	23.3½	8,200.	17,401	21.	18	14	2,985,000
Pennsylvania	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,890,000
S. Dakota	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,750,000
Tennessee	A. C.	S.	502.0	25.0	14,500.	23,000	22.	20	48	4,035,000
Washington	A. C.	S.	502.0	25.	14,518.	23,000	22.	20	48	4,035,000
West Virginia	A. C.	S.	502.0	24.1	13,680.	23,000	22.	18	48	3,885,000
Armored Ram.										
Katahdin	H. D. R.	S.	250.9	15.0	2,155.	5,068	16.11	4	....	930,000
Monitors, Armored.										
Arkansas	S. T. M.	S.	252.0	12.6	3,200.	2,400	12.03	6	11	960,000
Florida	S. T. M.	S.	252.0	12.6	3,200.	2,395	12.4	6	11	925,000
Nevada	S. T. M.	S.	252.0	12.6	3,200.	2,400	13.03	6	11	962,000
Wyoming	S. T. M.	S.	252.0	12.6	3,200.	2,811	12.37	6	11	975,000
Amphitrite	D. T. M.	S.	259.3	14.2	3,960.	1,600	10.5	6	12	....
Miantonomoh	D. T. M.	S.	259.6	14.6	3,990.	1,426	10.5	4	9	....
Monadnock	D. T. M.	S.	259.6	14.7	4,005.	3,000	12.	6	8	....
Monterey	D. T. M.	S.	256.0	14.10	4,084.	5,244	13.6	4	12	1,628,950
Puritan	D. T. M.	S.	290.3	18.0	6,060.	3,700	12 4	10	20	....
Terror	D. T. M.	S.	259.6	14.6	3,990.	1,600	10.5	8	8	....
Monitors Unfit for Service.										
Canonicus } Ordered to be Sold.	S. T. M.	I.	225.0	13.6	2,100.	340	6.	2	2	622,963
Jason	S. T. M.	I.	200.0	11.6	1,875.	340	5 to 6	2	2	422,767
Lehigh	S. T. M.	I.	200.0	11.6	1,875.	340	5 to 6	2	2	422,726
Montauk	S. T. M.	I.	200.0	11.6	1,875.	340	5 to 6	2	2	423,027
Nahant	S. T. M.	I.	200.0	11.6	1,875.	340	5 to 6	2	2	413,515
Protected Cruisers.										
Albany	P. C.	S.	346.0	18.0	3,769.	7,400	25.5	10	20	....
Atlanta	P. C.	S.	271.3	16.10	3,000.	4,030	15.6	8	13	617,000
Baltimore	P. C.	S.	327.6	20.0	4,413.	10,064	20.096	18	15	1,325,000
Boston	P. C.	S.	271.3	17.0	3,035.	4,300	15.60	18	13	619,000
Charleston	P. C.	S.	424.0	22.6	9,685.	21,000	22.	14	56	2,740,000
Chattanooga	P. C.	S.	292.0	15.9	3,200.	4,700	16.5	10	15	1,039,966
Chicago	P. C.	S.	325.0	20.4½	5,000.	9,000	18.	18	14	889,000
Cincinnati	P. C.	S.	300.0	18.0	3,213.	10,000	19.	11	13	1,100,000
Cleveland	P. C.	S.	292.0	15.9	3,200.	4,700	16.5	10	15	1,041,650
Columbia	P. C.	S.	412.0	22.6	7,375.	18,509	22.8	11	17	2,725,000
Denver	P. C.	S.	292.0	15.9	3,200.	4,700	17.	10	15	1,080,000
Des Moines	P. C.	S.	292.0	15.9	3,200.	4,700	16.5	10	15	1,065,000
Galveston	P. C.	S.	292.0	15.9	3,200.	4,700	16.5	10	15	1,027,000
Milwaukee	P. C.	S.	424.0	22.6	9,700.	21,000	22.	14	56	2,823,000
Minneapolis	P. C.	S.	412.0	22.6	7,375.	20,862	23.073	11	17	2,690,000
Newark	P. C.	S.	311.5	18.9	4,098.	8,869	19.	12	20	1,248,000

Note.—Battleships Michigan, New Hampshire, South Carolina, newly added, making 28 in all.

NAME.	Type or Kind.	Material.	Length. Ft. in.	Draft. Ft. in.	Displacement. Tons.	Horse Power.	Speed. (Knots per Hour.)	GUNS.		Cost.
								Main Battery.	Secondary Battery.	
Protected Cruisers—Con.										
New Orleans	P. C.	S.	346.0	18.0	3,769.	7,500	20.	10	20	....
Olympia	P. C.	S.	340.0	21.6	5,870.	17,313	21.686	14	22	$1,796,000
Philadelphia	P. C.	S.	327.6	19.6	4,410.	8,815	19.678	12	18	1,350,000
Raleigh	P. C.	S.	300.0	18.5½	2,210.	10,000	19.	11	13	1,100,000
San Francisco	P. C.	S.	310.0	21.7¼	4,868.	9,913	19.925	12	16	1,428,000
St. Louis	P. C.	S.	424.0	22.6	9,700.	21,000	22.	14	56	2,740,000
Tacoma	P. C.	S.	292.0	15.9	3,215.	4,700	16.5	10	14	1,041,900
Unprotected Cruisers.										
Detroit	U. P. C.	S.	257.0	14.8	2,103.	5,277	18.71	10	11	612,500
Marblehead	U. P. C.	S.	257.0	14.7	2,089.	5,451	18.44	10	11	674,000
Montgomery	U. P. C.	S.	257.0	14.7	2,089.	5,580	19.05	10	10	612,500
Gunboats, Unarmored.										
Bancroft	G. B.	S.	187.6	12.2	839.	1,213	14.37	4	10	250,000
Bennington	G. B.	S.	230.0	14.0	1,710.	3,436	17.5	6	10	490,000
Castine	G. B.	S.	204.0	12.0	1,177.	2,199	16.032	8	7	318,500
Concord	G. B.	S.	230.0	14.0	1,710.	3,405	16.8	6	8	490,000
Don Juan de Austria	G. B.	S.	210.0	12.6	1,130.	1,500	14.	4	8	Captured.
General Alva	G. B.	S.	212.6	11.0	1,115.	770	10.5	......	5	Purchased.
Isla de Cuba	G. B.	S.	192.0	12.3	1,125.	2,700	16.	4	8	Captured.
Isla de Luzon	G. B.	S.	192.0	12.3	1,125.	2,700	16.	4	8	Captured.
Machias	G. B.	S.	204.0	12.0	1,177.	2,046	15.46	8	8	318,500
Petrel	G. B.	S.	176.3	11.7	892.	1,095	11.79	4	6	247,000
Topeka	Train. S.	I.	250.0	17.9	2,300.	2,000	16.	6	9	....
Yorktown	G. B.	S.	230.0	14.0	1,710.	3,392	16.14	6	10	455,000
*No. 16	G. B.	S.								
Gunboats, Light Draft.										
Helena	G. B.	S.	250.9	9.0	1,397.	1,988	15.50	8	11	280,000
Nashville	G. B.	S.	220.0	11.0	1,371.	2,536	16.30	8	8	280,000
Wilmington	G. B.	S.	250.9	9.0	1,397.	1,894	15.08	8	12	280,000
Gunboats, Composite.										
Annapolis	G. B.	Comp.	168.0	12.5	1,060.	1,227	13.17	6	7	227,700
Dubuque (Building)	G. B.	Comp.	174.0	12.3	1,085.	1,000	12.	6	8	295,000
Marietta	G. B.	Comp.	174.0	12.0	1,000.	1,054	13.02	6	7	223,000
Newport	G. B.	Comp.	168.0	12.0	1,000.	1,008	12.29	6	7	229,400
Paducah	G. B.	Comp.	174.0	12.3	1,085.	1,000	12.	6	8	355,000
Princeton	G. B.	Comp.	168.0	12.9½	1,100.	800	12.	6	7	230,000
Vicksburg	G. B.	Comp.	168.0	12.0	1,000.	1,118	12.71	6	7	229,400
Wheeling	G. B.	Comp.	174.0	12.0	1,000.	1,081	12.88	6	7	219,000
Training Ships.										
Chesapeake	Ship.	Sh'h'd	....	......	....	....	......	6	8	112,600
Cumberland	Ship.	S.	....	......	....	....	......	6	8	....
Intrepid	Ship.	S.	....	......	....	....	......	6	8	....
Boxer	Brig.	W.	....	......	....	....	......	......	......	....
Special Class.										
Dolphin	Disp. B.	S.	240.0	14.3	1,486.	2,253	15.5	2	9	315,000
Vesuvius	Dyn. G. B.	S.	252.4	10.7½	929.	3,795	21.42	3	5	350,000
Gunboats Under 500 Tons.										
Albay	G. B.	I.	100.0	6.9	173.	125	8.	......	5	....
Alvarado	G. B.	S.	110.0	5.6	106.	....	19.	......	4	....
Arayat	G. B.	I.	115.3	6.6	243.	....	10.	......	7	....
Basco	G. B.	I.	69.3	4.9	61.	44	7.	......	3	....
Calamianes	G. B.	I.	100.0	6.9	173.	125	8.	......	5	....
Callao	G. B.	I.	114.4	6.6	243.	250	10.	......	7	....
Elcano	G. B.	I.	157.11	10.0	620.	600	11.	4	6	....
Gardoqui	G. B.	I.	69.3	4.9	61.	44	7.	......	3	....
Leyte	G. B.	I.	99.1	6.9	171.	120	8.	......	5	....
Manileño	G. B.	I.	99.9	6.0	170.	125	7.	......	5	....
Mariveles	G. B.	I.	99.9	6.0	170.	125	7.	......	5	....
Mindanao	G. B.	S.	101.6	5.9	163.	100	7.	......	8	....
Mindoro	G. B.	I.	99.9	6.0	170.	125	7.	......	5	....
Pampanga	G. B.	I.	115.3	6.6	243.	250	10.	......	8	....
Panay	G. B.	I.	92.0	6.3	162.	125	8.	......	5	....
Paragua	G. B.	I.	115.3	6.6	243.	250	10.	......	8	....
Quiros	G. B.	Comp.	137.9	7.9	350.	450	11.	......	8	....
Samar	G. B.	I.	115.3	6.6	243.	250	10.	......	8	....
Sandoval	G. B.	S.	110.0	5.6	106.	....	19.	......	4	....
Urdaneta	G. B.	I.	69.3	4.9	61.	44	7.	......	3	....
Villalobos	G. B.	Comp.	148.0	7.6	370.	450	11.	......	6	....
Torpedo-Boat Destroyers.										
Bainbridge	T. B. D.	S.	245.0	6.6	420.	8,000	28.45	2to.tu.	7	283,000
Barry	T. B. D.	S.	245.0	6.6	420.	8,000	28.12	2to.tu.	7	283,000
Chauncey	T. B. D.	S.	245.0	6.6	420.	8,000	28.64	2to.tu	7	283,000
Dale	T. B. D.	S.	245.0	7.0	420.	8,000	28.10	2to.tu.	7	260,000
Decatur	T. B. D.	S.	245.0	7.0	420.	8,000	28.10	2to.tu.	7	260,000
Hopkins	T. B. D.	S.	244.0	6.0	408.	7,200	29.02	2to.tu.	7	291,000
Hull	T. B. D.	S.	244.0	6.0	408.	7,200	28.03	2to.tu.	7	291,000
Lawrence	T. B. D.	S.	240.10	6.9¾	446.	6,375	28.4	2to.tu.	7	281,000
Macdonough	T. B. D.	S.	240.10	6.8	430.	6,125	28.03	2to.tu.	7	281,000
Paul Jones	T. B. D.	S.	240.4⅛	7.2½	480.	7,980	28.91	2to.tu.	7	285,000
Perry	T. B. D.	S.	240.4⅛	7.2½	480.	9,100	28.32	2to.tu.	7	285,000

*Contract not awarded.

NAME.	Type or Kind.	Material.	Length. Ft. in.	Draft. Ft. in.	Displacement. Tons.	Horse Power.	Speed. (Knots per Hour.)	GUNS.		Cost.
								Main Battery.	Secondary Battery.	
Torpedo-Boat Destroyers—Con.										
Freble	T. B. D.	S.	240.4⅛	7.2½	480.	7,600	28.03	2 to. tu.	7	$285,000
Stewart	T. B. D.	S.	245.0	6.6	420.	8,000	29.69	2 to. tu.	7	282,000
Truxtun	T. B. D.	S.	248.0	6.0	433.	8,300	29.58	2 to. tu.	8	286,000
Whipple	T. B. D.	S.	248.0	6.0	433.	8,300	28.52	2 to. tu.	8	286,000
Worden	T. B. D.	S.	248.0	6.0	433.	8,300	29.86	2 to. tu.	8	286,000
Torpedo Boats.										
Bagley	T. B.	S.	157.0	4.11⅛	175.	4,200	29.15	3 to. tu.	3	161,000
Bailey	T. B.	S.	205.0	6.10	280.	5,600	30.198	2 to. tu.	4	210,000
Barney	T. B.	S.	157.0	4.11⅛	175.	4,200	29.04	3 to. tu.	3	161,000
Biddle	T. B.	S.	157.0	4.11⅛	175.	4,200	28.57	3 to. tu.	3	161,000
Blakely (Building)	T. B.	S.	175.1½	5.10¾	196.	3,000	26.	3 to. tu.	3	159,400
Cushing	T. B.	S.	138.9	4.10⅜	105.	1,720	22.5	3 to. tu.	3	82,750
Davis	T. B.	S.	146.0	5.10	154.	1,750	23.41	3 to. tu.	3	81,546
Dahlgren	T. B.	S.	147.0	4.7½	146.4	4,200	30.	2 to. tu.	4	194,000
De Long	T. B.	S.	175.1½	5.10¾	196.	3,000	25.52	3 to. tu.	3	159,400
Du Pont	T. B.	S.	175.0	4.8	165.	....	28.58	3 to. tu.	4	144,000
Ericsson	T. B.	S.	149.7	4.9	120.	1,800	24.	3 to. tu.	4	113,500
Farragut	T. B.	S.	213.6	6.0	279.	5,878	30.13	2 to. tu.	4	227,500
Fox	T. B.	S.	146.0	5.10	154.	1,750	23.13	3 to. tu.	3	81,546
Foote	T. B.	S.	160.0	5.0	142.	2,000	24.534	3 to. tu.	3	97,500
Goldsborough	T. B.	S.	198.0	6.10½	255.	6,000	30.	2 to. tu.	4	214,500
Gwin	T. B.	S.	99.6	3.3	45.78	850	20.88	2 to. tu.	1	39,000
McKenzie	T. B.	S.	99.3	4.3	65.	850	20.11	2 to. tu.	1	48,500
Manley	T. B.	S.	60.8	2.10¾	....	....	......	......	......	....
McKee	T. B.	S.	99.3	4.3	65.	850	19.82	2 to. tu.	2	45,000
Morris	T. B.	S.	138.3	4.0⅞	104.75	1,750	24.	3 to. tu.	4	85,000
Nicholson (Building)	T. B.	S.	175.0	6.5½	218.47	....	25.75	3 to. tu.	3	165,000
O'Brien (Building)	T. B.	S.	175.0	6.5¾	219.61	....	25.	3 to. tu.	3	165,000
Porter	T. B.	S.	175.0	4.8	165.	....	28.63	3 to. tu.	4	144,000
Rogers	T. B.	S.	160.0	5.0	142.	2,295	24.49	3 to. tu.	3	97,500
Rowan	T. B.	S.	170.0	5.11½	210.	3,200	27.074	3 to. tu.	4	160,000
Shubrick	T. B.	S.	175.0	5.2	200.	3,375	26.07	3 to. tu.	3	129,750
Somers	T. B.	S.	149.3⅝	5.10½	150.	1,900	17.5	3 to. tu.	4	....
Stockton	T. B.	S.	175.0	5.2	200.	3,275	26.03	3 to. tu.	3	129,750
Stringham (Building)	T. B.	S.	225.0	6.6	340.	7,200	30.	2 to. tu.	4	236,000
T. A. M. Craven	T. B.	S.	147.0	4.7½	146.4	4,200	30.	2 to. tu.	4	194,000
Talbot	T. B.	S.	99.6	3.3¼	46.5	850	21.15	2 to. tu.	1	39,000
Thornton	T. B.	S.	175.0	5.2	200.	3,000	27.57	3 to. tu.	3	129,750
Tingey	T. B.	S.	175.0	4.8	165.	3,000	26.	3 to. tu.	3	168,000
Wilkes	T. B.	S.	175.0	4.8	165.	3,495	25.99	3 to. tu.	3	146,000
Winslow	T. B.	S.	160.0	5.0	142.	2,000	24.82	3 to. tu.	3	97,500
Stiletto	T. B.	W.	88.6	3.0	31.	359	18.22	......	......	25,000
Submarine Torpedo Boats.										
Adder	S. T. B.	S.	66.9	......	122.5	70	7.08	1 to. tu.	3 to. tu.	170,000
Grampus	S. T. B.	S.	63.10	......	125.	70	7.6	1 to. tu.	3 to. tu.	170,000
Holland	S. T. B.	S.	53.11	......	74.	50	......	1 to. tu.	......	150,000
Moccasin	S. T. B.	S.	63.9⅞	......	122.55	70	7.24	1 to. tu.	3 to. tu.	170,000
Pike	S. T. B.	S.	63.10	......	125.	70	7.44	1 to. tu.	3 to. tu.	170,000
Plunger	S. T. B.	S.	63.9⅞	......	122.55	70	7.25	1 to. tu.	3 to. tu.	170,000
Porpoise	S. T. B.	S.	63.9⅞	......	122.55	70	7.12	1 to. tu.	3 to. tu.	170,000
Shark	S. T. B.	S.	63.9⅞	......	122.55	70	7.28	1 to. tu	3 to. tu.	170,000
Iron and Wooden Steam Vessels.										
Alert	Mostly training or receiving ships.	I.	177.4	13.0	1,110.	500	10.	6	5	....
Michigan		I.	163.3	9.0	685.	365	10.5	......	10	....
Pinta		I.	137.0	10.0	550.	310	8.5	......	......	....
Ranger		I.	177.4	13.0	1,261.	500	10.	6	5	....
Reina Mercedes		I.	292.0	16.9	2,835.	....	......	......	......	....
Adams		W.	187.3	14.9¾	1,400.	800	9.8	6	6	....
Enterprise		W.	185.0	14.3	1,375.	800	11.4	......	......	....
Essex		W.	185.0	14.3	1,375.	800	10.4	6	8	....
Hartford		W.	226.0	18.2	2,790.	2,000	12.	13	15	....
Lancaster		W.	225.8	19.2	3,250.	1,000	9.6	10	8	....
Mohican		W.	216.0	16.6	1,900.	1,000	10.65	6	8	....
Auxiliary Cruisers.										
Buffalo	A. C.	S.	391.6	19.5	6,000.	3,600	14.5	6	8	....
Dixie	A. C.	S.	391.6	19.11	6,114.	3,800	16.	8	11	....
Panther	A. C.	I.	312.1	15.9	3,380.	....	13.	8	8	....
Prairie	A. C.	I.	391.6	20.9	6,620.	3,800	14.5	8	16	....
Yankee	A. C.	I.	391.10	20.1	6,225.	3,800	12.5	8	10	....

Beside the vessels mentioned in the foregoing list the United States navy also embraces the following vessels of varying types and materials and devoted to minor lines of service:

Wooden Sailing Vessels.—There are 7 of these, with an average displacement of 1,400 tons each, 2 of them having main batteries of 6 guns each, and 3 of them secondary batteries of from 7 to 14 guns.

Steam Tugs.—There are 41 of these, mostly steel, but some of iron and wood. Their displacement runs from 150 up to 700 tons. Their service is mostly confined to navy yards. Their horse-power varies from 250 to 2,000.

Unfit Wooden Steam Vessels.—There are 10 of these, mostly used as receiving or training ships.

Unfit Wooden Sailing Vessels.—There are 5 of these, mostly used as receiving and training ships.

Converted Yachts.—Of these there are 23 in service, mostly of steel. They vary in length from 90 to 273 feet, and have armed single batteries.

Colliers.—Sixteen colliers are attached to the navy. Beside colliers, there are 14 hospital and supply ships.

PAY TABLE OF THE UNITED STATES NAVY.

The retiring age in the United States Navy is sixty-two years. Seamen, firemen, shipwrights, musicians, coal passers and apprentices in the navy receive monthly pay, running from $9 per month up to $35 according to class. Petty officers, such as bandmasters, carpenters, etc., receive from $360 to $840 a year according to class. Clerks receive from $1,000 to $1,800 a year. Warrant officers, as boatswains, gunners, etc., receive from $1,200 to $1,800 a year.

OFFICIAL RANK.	Sea and Foreign Shore Duty.	Home Shore Duty.	On Wait or Leave.
Admiral	$13,500	$13,500	....
Rear Admiral (highest nine)	7,500	6,375	....
Rear Admiral (second nine)	5,500	4,675	....
Captain	3,500	2,975	....
Commander	3,000	2,550	....
Lieutenant	1,800	1,530	....
Lieutenant (junior grade)	1,500	1,275	....
Ensign	1,400	1,190	....
Chief Boatswain	1,400	1,400	....
Chief Gunner	1,400	1,400	....
Chief Carpenter	1,400	1,400	....
Chief Sailmaker	1,400	1,400	....
Naval Cadet	500	500	$500
Mate	900	700	500
Medical and Pay Director	4,400	....	....
Surgeon and Paymasters of fleets	4,400	....	....
Surgeon and Paymaster	2,800 to 4,200	2,400 to 4,000	2,000 to 3,000
Chaplain	2,500 to 2,800	2,000 to 2,300	1,600 to 1,900
Civil Engineer	2,400 to 3,500	2,400 to 3,500	1,500 to 2,600
Naval Constructor	....	3,200 to 4,200	2,200 to 3,200

PENSIONERS ENROLLED; AMOUNTS PAID, 1861-1904.

[From Reports of Commissioner of Pensions.]

YEAR ENDING JUNE 30.	NUMBER OF PENSIONERS ON THE ROLLS.			First Payments.	Pensions, Exclusive of First Payments.	Total Disbursements.
	Invalids.	Widows, etc.	Total.			
1861	4,337	4,299	8,636	....	....	$1,072,461.55
1862	4,341	3,818	8,159	....	....	790,384.76
1863	7,821	6,970	14,791	....	....	1,025,139.91
1864	23,479	27,656	51,135	....	....	4,504,616.92
1865	35,880	50,106	85,986	....	....	8,525,153.11
1866	55,652	71,070	126,722	....	....	13,459,996.43
1867	69,565	83,618	153,183	....	....	18,619,956.46
1868	75,957	93,686	169,643	....	....	24,010,981.99
1869	82,859	105,104	187,963	....	....	28,422,884.08
1870	87,521	111,165	198,686	....	....	27,780,811.81
1871	93,394	114,101	207,495	....	....	33,077,383.63
1872	113,954	118,275	232,299	....	....	30,169,341.00
1873	119,500	118,911	238,411	....	....	29,185,289.62
1874	121,628	114,613	236,241	....	....	30,593,749.56
1875	122,989	111,832	234,821	....	....	29,683,116.63
1876	124,239	107,898	232,137	....	....	28,351,599.69
1877	128,723	103,381	232,104	$3,284,937.12	$24,837,746.36	28,580,157.04
1878	131,649	92,349	223,998	2,992,352.17	23,538,439.93	26,844,415.18
1879	138,615	104,140	242,755	5,763,758.60	27,725,979.96	33,780,526.19
1880	145,410	105,392	250,802	12,468,191.20	44,558,802.92	57,240,540.14
1881	164,110	104,720	268,830	23,628,176.61	26,458,498.14	50,626,538.51
1882	182,633	103,064	285,697	26,421,669.19	27,408,390.05	54,296,280.54
1883	206,042	97,616	303,658	29,906,753.94	29,915,480.89	60,431,972.85
1884	225,470	97,286	323,756	23,413,815.10	32,682,126.58	57,273,536.74
1885	247,146	97,979	345,125	27,115,912.21	37,817,375.91	65,693,706.72
1886	270,346	95,437	365,783	22,137,054.16	41,621,591.49	64,584,270.45
1887	306,298	99,709	406,007	25,166,990.06	48,300,591.81	74,815,486.85
1888	343,701	108,856	452,557	22,299,605.46	56,568,841.28	79,646,146.37
1889	873,699	116,026	489,725	21,442,349.13	66,832,764.15	89,131,968.44
1890	415,654	122,290	537,944	38,721,866.03	66,806,314.35	106,493,890.19
1891	536,821	139,339	676,160	38,652,274.31	78,326,898.41	118,548,959.71
1892	703,242	172,826	876,068	45,114,167.68	94,045,188.71	141,086,948.84
1893	759,706	206,306	966,012	33,756,549.38	122,983,917.76	158,155,342.51
1894	754,382	215,162	969,544	11,917,359.58	127,887,101.47	140,772,163.78
1895	751,456	219,068	970,524	11,451,133.01	128,356,204.29	140,959,361.37
1896	748,514	222,164	970,678	11,289,278.48	126,925,483.46	139,280,078.15
1897	747,492	228,522	976,014	12,575,601.40	127,374,115.95	139,949,717.35
1898	758,511	235,203	993,714	15,542,914.03	129,108,965.77	144,651,879.80
1899	754,104	237,415	991,519	9,247,957.75	129,107,095.20	138,355,052.95
1900	752,510	241,019	993,529	9,828,525.07	128,633,605.58	138,462,130.65
1901	748,649	249,086	997,735	9,934,764.00	128,596,719.84	138,531,483.84
1902	738,809	260,637	999,446	....	....	138,491,822.48
1903	728,732	267,813	996,545	....	....	138,890,088.64
1904	....	....	994,762	....	....	141,093,571.00

Pension Laws and Ratings Now in Force.

I.

For Simple Total Disability Provided by Section 4695, Revised Statutes, United States.

Army.—Lieutenant-colonel and all officers of higher rank, $30 per month; major, surgeon, and paymaster $25; captain, provost-marshal, and chaplain, $20; first lieutenant, assistant surgeon, deputy provost-marshal, and quartermaster, $17; second lieutenant and enrolling officer $15; all enlisted men $8.

Navy and Marine Corps.—Captain, and all officers of higher rank, commander, lieutenant commanding and master commanding, surgeon, paymaster, and chief engineer ranking with commander by law, lieutenant-colonel, and all of higher rank in Marine Corps, per month, $30; lieutenant, passed assistant surgeon, surgeon, paymaster and chief engineer ranking with lieutenant by law, and major in Marine Corps, $25; master, professor of mathematics, assistant surgeon, paymaster, and chaplain, and captain in Marine Corps $20; first lieutenant in Marine Corps, $17; first assistant engineer, ensign, and pilot, and second lieutenant in Marine Corps $15; cadet midshipmen, passed midshipmen, midshipmen, clerks of admirals, of paymasters, and of officers commanding vessels, second and third assistant engineers, master's mate, and warrant officers, $10; all enlisted men, except warrant officers, $8.

II.

Rates and Disabilities Specified by Law.

Loss of both hands, per month, $100; total disability in both hands, $72; loss of both feet, $72; loss of both eyes, $72; loss of an eye, the other lost before enlistment, $72; regular aid and attendance (first grade), $72; frequent aid and attendance, $50; amputation at shoulder or hip joint, or so near joint as to prevent use of artificial limb, $45; total disability of arm or leg $36; loss of one hand and one foot, $36; total disability in one hand and one foot, $36; amputation at or above elbow or knee, $36; loss of a hand or a foot, $30; total disability of one hand or one foot, $30; inability to perform manual labor (second grade) $30; total deafness, $30; disability equivalent to loss of hand or foot (third grade), $24.

III.

Rates Fixed by the Commissioner of Pensions for Certain Disabilities Not Specified by Law.

Anchylosis of shoulder, per month, $12; anchylosis of elbow, $10; anchylosis of knee, $10; anchylosis of ankle, $8; anchylosis of wrist, $8; loss of sight of one eye, $12; loss of one eye, $17; nearly total deafness of one ear, $6; total deafness of one ear, $10; slight deafness of both ears, $6; severe deafness of one ear and slight of the other, $10; nearly total deafness of one ear and slight of the other, $15; total deafness of one ear and slight of the other, $20; severe deafness of both ears, $22; total deafness of one ear and severe of the other, $25; deafness of both ears existing in a degree nearly total, $27; loss of palm of hand and all the fingers, the thumb remaining, $17; loss of thumb, index, middle, and ring fingers, $17; loss of thumb, index, and middle fingers, $16; loss of thumb and index finger, $12; loss of thumb and little finger, $10; loss of thumb, index, and little fingers, $16; loss of thumb, $8; loss of thumb and metacarpal bone, $12; loss of all the fingers, thumb and palm remaining, $16; loss of index, middle, and ring fingers, $16; loss of middle, ring, and little fingers, $14; loss of index and middle fingers, $8; loss of little and middle fingers, $8; loss of little and ring fingers, $6; loss of ring and middle fingers, $6; loss of index and little fingers, $6; loss of index fingers, $4; loss of any other finger without complications, $2; loss of all the toes of one foot, $10; loss of great, second, and third toes, $8; loss of great toe and metatarsal, $8; loss of great and second toes, $8; loss of great toe, $6; loss of any other toe and metatarsal, $6; loss of any other toe, $2; Chopart's amputation of foot, with good results, $14; Pirogoff's modification of Syme's, $17; small varicocele, $2; well-marked varicocele, $4; inguinal hernia, which passes through the external ring, $10; inguinal hernia, which does not pass through the external ring, $6; double inguinal hernia, each of which passes through the external ring, $14; double inguinal hernia, one of which passes through the external ring and the other does not, $12; double inguinal hernia, neither of which passes through the external ring, $8; femoral hernia, $10.

Compounding Disabilities.—Section 4699, Revised Statutes, provides that the rate of eighteen dollars per month may be proportionately divided for any degree of disability established for which section forty-six hundred and ninety-five makes no provision, thus fixing the highest rating provided by existing laws which can be allowed by considering disabilities separately and compounding so as to allow the full amount which the disabilities, so considered, would aggregate.

Widows.—The widow of a soldier or sailor who died of a disability incurred while in the service and in line of duty is, under the provisions of Section 4702, entitled to the rating to which he would have been entitled for a simple total disability, as shown *ante* in I, and, under the provisions of Section 4696, Revised Statutes, the rank of the soldier is determined by the rank held by him when death cause was incurred, without regard to subsequent promotions.

From and after March 19, 1886, by the act approved on that date, the widow of a private or non-commissioned officer is entitled to $12 per month, provided that she married deceased soldier or sailor prior to March 19, 1886, or thereafter married him prior to or during his term of service.

Widow's Increase.—From and after July 25, 1866, a widow is entitled to $2 per month increase for each legitimate minor child of the soldier or sailor in her care and custody.

Minors' Pension.—Same rates and increase as in widows' claims, except that in cases of children of fathers below the rank of a commissioned officer, the rate is increased to $12 per month from March 19, 1886, without regard to date of soldier's or sailor's marriage.

Mothers, Fathers, Brothers, Sisters.—Same rates as provided in minors' and widows' claims in cases of commissioned officers, and $8 per month to March 19, 1886, and $12 thereafter in other cases.

IV.

Pensions Based Upon Service Performed Since March 4, 1861. Act of June, 1890. *

Survivors, per month, $6 to $12; widows and minors, $8. To widows' and minors' rate add $2 per month increase for each legitimate minor child of soldier or sailor under the age of 16.

Act of August 5, 1892.—Female nurses, $12.

Act of March 2, 1867 (Navy only).—For twenty years' naval service entitled to one-half the pay he was receiving at date of discharge.

Ten years' service; whatever rate may be allowed by a board of officers appointed by the Secretary of the Navy, not to exceed rate for total disability.

If in addition to service pension sailor is pensioned for disability, the service pension covering the same time shall not exceed one-fourth the rate allowed for disability.

Providing a Minimum Rate of $6 for All Invalid Pensions. Act March 2, 1895.

This act provides that all pensioners now on the rolls, who are pensioned at less than $6 a month shall have their pensions increased to $6 a month, and that hereafter, whenever any applicant for pension would, under existing rates, be entitled to less than $6 for any single disability or several combined disabilities, such pensioner shall be rated at not less than $6 a month.

Pensions Based Upon Service Performed Prior to March 4, 1861.

Revolutionary War.—There are no survivors of this war. Widows, from March 9, 1878, per month, $8, and from March 19, 1886, $12.

War of 1812.—Sections 4736 and 4740, Revised Statutes, and acts of March 9, 1878, and March 19, 1886. Survivors, per month, $8; widows, from March 9, 1878, $8, and from March 19, 1886, $12.

Indian Wars, from 1832 to 1842.—Survivors, per month, $8; widows, $8.

Mexican War.—Survivors, per month, $8. Act of January 5, 1893, provides, under certain conditions, for the increase of survivors' pensions only to $12; widows, $8.

NUMBER OF PENSIONERS IN EACH STATE AND TERRITORY.

Alabama	3,694	Idaho	1,736	Michigan	43,833	North Carolina	4,033	Utah	886
Alaska	87	Illinois	72,026	Minnesota	16,786	North Dakota	1,945	Vermont	8,925
Arizona	768	Indiana	66,586	Mississippi	4,576	Ohio	104,060	Virginia	9,238
Arkansas	11,046	Indian Territory	3,396	Missouri	52,813	Oklahoma	8,641	Washington	7,316
California	20,229	Iowa	37,364	Montana	1,776	Oregon	5,647	West Virginia	12,553
Colorado	8,352	Kansas	40,765	Nebraska	17,364	Pennsylvania	103,697	Wisconsin	27,910
Connecticut	12,040	Kentucky	28,437	Nevada	309	Rhode Island	4,826	Wyoming	883
Delaware	2,722	Louisiana	6,347	New Hampshire	8,742	South Carolina	1,926	Insular Possess'ns.	86
Dist. of Columbia	8,720	Maine	19,668	New Jersey	20,669	South Dakota	5,167	Foreign	4,609
Florida	3, 092	Maryland	12,852	New Mexico	1,781	Tennessee	18,460		
Georgia	3,606	Massachusetts	39,725	New York	88,269	Texas	8,456	Total	994,762

---

* This act was construed, April 13, 1904, so as to make old age a disability; soldiers at 62 years of age to receive $6.00 per month; at 65, $8.00 per month; at 68, $10.00 per month; at 70, $12 per month, or full disability pension.

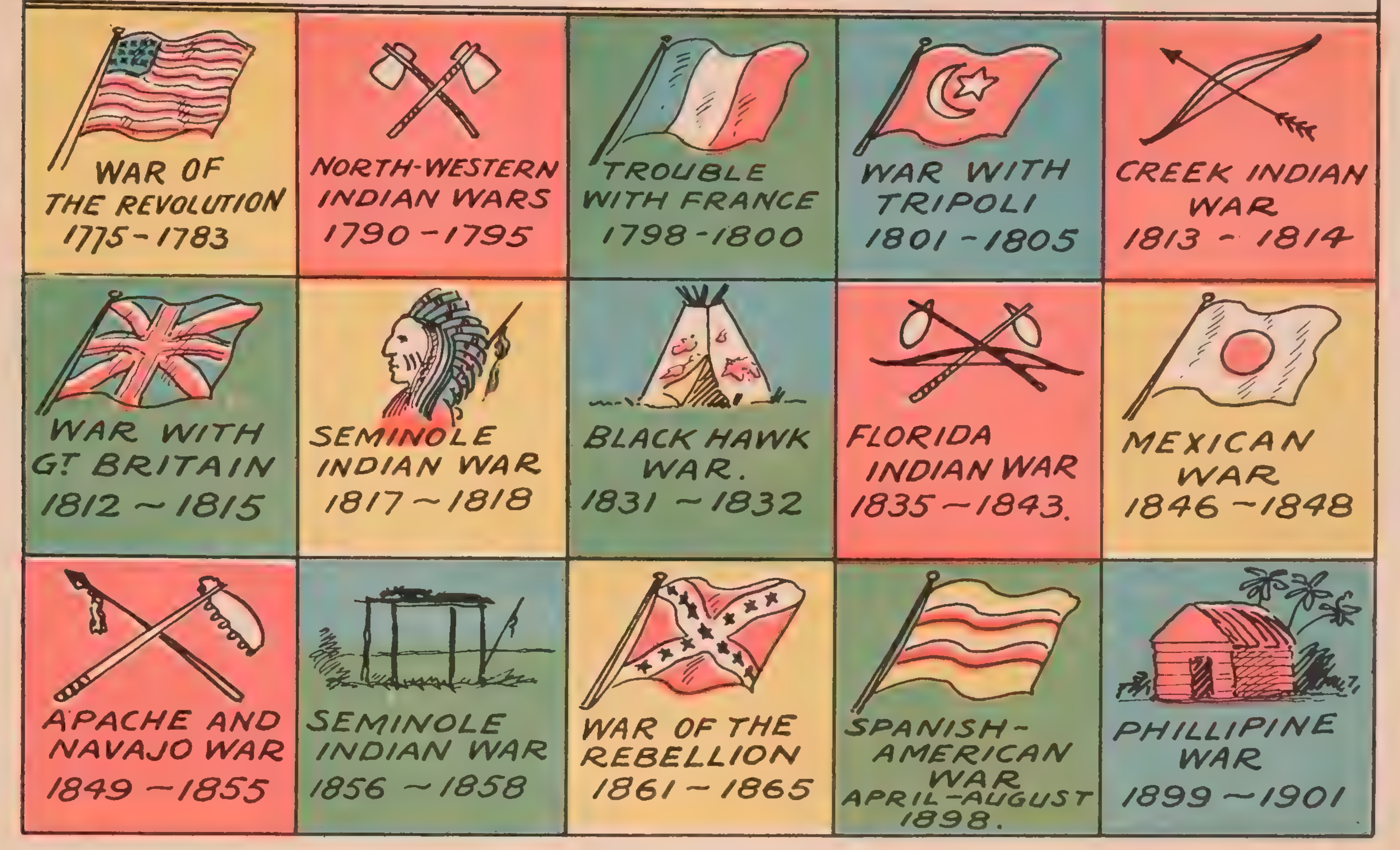
Wars and Battles of the Nation.

[PRINCIPAL BATTLES OF THE REVOLUTION AND THE WAR OF 1812.

PLACE OF BATTLE.	DATE.	COMMANDERS.		American. Number engaged.	English. Number engaged.	American. Casualties.	English. Casualties.
		American.	English.				
Augusta, Ga.	June 1–4, 1781	Major Eggleston	Colonel Brown			23 k. 28 w.	52 k. 20 w.
Bennington, Vt.	Aug. 15–16, 1777	General Stark	Colonel Baum	2,000	1,200	200 k. & w.	200 k. 34 w 900 p.
Blockstock, S. C.	Nov. 20, 1780	Sumter	Tarleton	500	400		800 k. w. & p.
Bladensburg	Aug. 24, 1814	Winder	Ross	3,500	5,000	Surrended.	
Bemis Heights, N. Y.	Sept. 19, 1777	Gates	Burgoyne	2,500	3,000		
Brandywine, Pa.	Sept. 11, 1777	Washington	Howe	11,000	18,000	306 k. 600 m. 400 p.	500 k.
Brooklyn, N. Y.	Aug. 26, 1776	General Greene	General Howe	10,000	20,000	2,000 k. w. & p.	400 k.
Boston	March 17, 1776	British Evacuate	City and Harbor				
Bunker Hill	June 17, 1775	General Warren	General Howe	3,000	4,500	450 k. & w.	1,050 p.
Charleston (Ft. Moultrie)	June 28, 1776	Moultrie	General Clinton	400	4,000	10 k. 22 w.	225 k. & W.
Chemung, N. Y.	Aug. 29, 1779	Sullivan	Brandt	4,000	1,500		
Charleston, S. C.	May 12, 1780	Lincoln	Clinton	3,700	9,000		5 k. 15 w.
Camden, S. C.	Aug. 15, 1780	General Gates	Cornwallis	3,000	2,200		
Cowpens, S. C.	Jan. 17, 1781	General Morgan	Cornwallis	900	1,100	70 k. & w.	
Chrysler's Field.	Nov. 11, 1813	Boyd	Morrison	1,500	2,000	200 k. & w.	
Chippewa	July 5, 1814	Brown	Riall	1,900	2,100	68 k. w. &. p.	
Detroit	Aug. 15, 1812	Hull	Brock	2,500	13,000	Surrender.	
Eutaw Springs, S. C.	Sept. 8, 1781	General Greene	Lord Rawdon	2,000	2,800	152 k. 355 w. 40 m.	693 w. & m.
Fort Washington, N. Y.	Nov. 16, 1776	Colonel Magaw	General Howe	3,000	5,000	100 k. & w.	1,000 k. & w.
Fort Schuyler	Aug. 6, 1777	General Herkimer	General St. Leger			150 k. & w.	Unknown.
Fort Mifflin, Pa.	Nov. 16, 1777	Major Thayer	General Howe	400		Mixed.	
Fishing Creek	Aug. 18, 1780	Sumter	Tarleton	700	3,500		150 k.
Fort 96, N. C.	May–June, 1781	General Greene	Colonel Kruger	1,000	550	150 k. w. & m.	52 k. 334 w.
Frenchtown	Jan. 22, 1813	Winchester	Proctor	800	1,500	260 k. & s.	
Fort Meigs	May 5, 1813	Clay	Proctor	1,200	2,000	800 k. w. & p.	
Fort George, Canada	May 27, 1813	Dearborn	Vincent			72 k. & w.	
Fort Erie (assault)	Aug. 15, 1814	Gaines	Drummond	2,500	5,000	84 k.	
Fort McHenry, Balto.	Sept. 3, 1814	Armistead	Cochrane	3,000	Ships.		
Fort Bower	Sept. 15, 1814	Lawrence	Nicholls	120	Mixed.	8 k. & W.	
Fort Erie (sortie)	Sept. 17, 1814	Brown	Drummond	2,500	3,000	300 k. & w.	
Germantown, Pa.	Oct. 4, 1777	Washington	Howe	11,000	15,000	152 k. 521 w. 400 p.	100 k. 400 w.
Guilford C. H., N. C.	March 15, 1781	General Greene	Cornwallis	4,400	2,400	1300 k. & w.	258 k. & w.
Harlem Plains, N. Y.	Sept. 16, 1776	Washington					18 k. 90 w.
Hanging Rock, N. C.	Aug. 18, 1780	Sumter	Tarleton	700	3,500		150 k.
Hobkirk's Hill, Va.	April 25, 1791	General Greene	Rawdon	1,200	900	266 k. w. & m.	
King's Mountain, S. C.	Oct. 7, 1780	Campbell	Ferguson	900	1,100	20 k.	
Lexington, Concord	April 19, 1775	Colonel Barrett	Colonel Smith		1.700	50 k. 34 w.	65 k. 180 w. 20 p.
La Colle Mill	March 30, 1814	Wilkinson	Hancock	4,000	2,000	150 k. & w.	
Lundy's Lane	July 20, 1814	Brown	Drummond	3,500	5,000		
Monmouth, N. J.	June 28, 1778	Washington	Sir Henry Clinton	12,000	11,000	67 k. 160 w.	300 k. 300 w. 100 p.
Maguaga	Aug. 9, 1812	Miller	Tecumseh	600	900		
Nine miles from N. O.	Dec. 23, 1814	Jackson	Keane	3,000	2,500	240 k. w. & p.	
New Orleans	Jan. 8, 1815	Jackson	Pakenham	6,000	12.000	71 k. w. & p.	
Princeton, N. J.	Jan. 3, 1777	Washington	Colonel Mawhood	3,000	1,800	100 k. 300 p.	
Plattsburg	Sept. 11, 1814	Macomb	Prevost	3,000	12,000		
Quebec	Dec. 6–31, 1775	Schuyler	M'Lean and Carlton	900	1.200	160 k. & w.	20 k. & w.
Quaker Hill, R. I.	Aug. 29, 1778	Sullivan	Pigot	5,000	5.000	30 k. 132 w. 440 m.	20 k. & w.
Queenstown	Oct. 13, 1812	Van Rensselaer	Brock	1,200	2,500	99 k. 900 w.	
Stillwater, Saratoga	Oct. 7, 1777	Gates	Burgoyne	8,000	6,000		5,791 p.
Savannah, Ga.	Dec. 29, 1778	Robert Howe	Campbell	900	2,000	100 k. 453 p.	
Sunbury, Ga.	Jan. 9, 1779	Lane	Prevost	200	2,000		
Stony Ferry, S. C.	June 20, 1779	General Lincoln	Colonel Maitland	800	2,000	146 k. & w. 155 m.	63 k. 543 p.
Stony Point, N. Y.	July 16, 1779	Washington	Clinton	1,200	600	15 k. 83 w.	
Savannah, Ga.	Oct. 9, 1779	Lincoln	Prevost	4,500	2,900		
Springfield, N. J.	June 23, 1780	General Greene	Gen. Kuyphausen	3,000	5,000	13 k. 58 w.	
Sackett's Harbor	May 29, 1813	Brown	Prevost	1,000	1,000	100 k. &. w.	60 k.
Ticonderoga	May 10, 1775	Col. Ethan Allen	Captain Delaplace	83	48	5 p.	48 p.
Trenton, N. J.	Dec. 26, 1776	Washington;	Lord Cornwallis	2,400	10,000	2 k. 2 frozen.	36 k. 1,000 p.
Thames, Canada	Oct 5, 1813	Harrison	Proctor	2,500	20,000	50 k. & w.	
Wyoming, Pa.	July 3, 1778	Colonel Z. Butler	John Butler	400	1,000	Massacre.	222 k. & w.
White Plains, N. Y.	Oct. 28, 1776	Washington	Howe	1,600	2,000	300 k. & w.	300 k. & w.
Waxhaw, S. C.	May 29, 1780	Col. Abr. Buford	Tarleton	400		113 k. 150 w. 53 p.	35 k. 50 p.
Washington	April 27, 1814	Capitol burned by	Rose				
Yorktown, Va.	Oct. 16–19, 1781	Washington	Cornwallis	16,000	7,500	300 k. & w.	7,500 k. w. m. & p:
York, Toronto	April 27, 1813	Pike	Scheaffe	1,700	1,500	300 k. w. & m.	

NOTE.—The British sent 134,000 soldiers and sailors to the Revolutionary war and 20,000 Hessians and 10,000 Indians were added, making a total of about 164,000 in all arms of the British service engaged against the Americans. This force the Continentals met with a hastily organized army, poorly weaponed, numbering about 230,000, which was supplemented by a militia of 50,000, and a flotilla of battleships furnished by France.

WARS OF THE UNITED STATES.



WAR OF THE REVOLUTION 1775-1783	NORTH-WESTERN INDIAN WARS 1790-1795	TROUBLE WITH FRANCE 1798-1800	WAR WITH TRIPOLI 1801-1805	CREEK INDIAN WAR 1813-1814
WAR WITH GT BRITAIN 1812~1815	SEMINOLE INDIAN WAR 1817~1818	BLACK HAWK WAR. 1831~1832	FLORIDA INDIAN WAR 1835~1843.	MEXICAN WAR 1846~1848
APACHE AND NAVAJO WAR 1849-1855	SEMINOLE INDIAN WAR 1856~1858	WAR OF THE REBELLION 1861~1865	SPANISH-AMERICAN WAR APRIL-AUGUST 1898.	PHILLIPINE WAR 1899~1901

GENERALS COMMANDING U.S. ARMY.

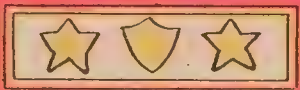
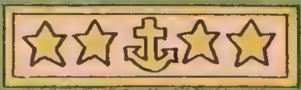
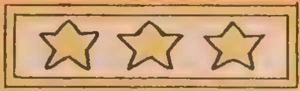
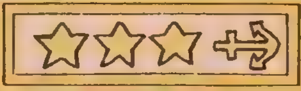
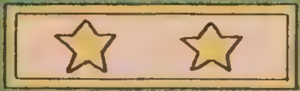
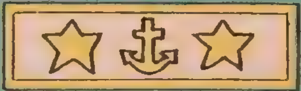
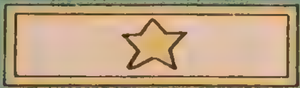
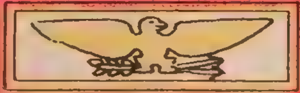
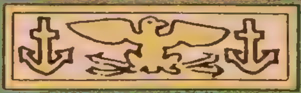
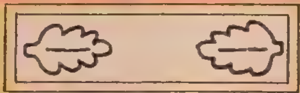
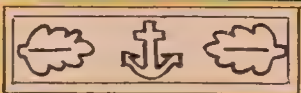
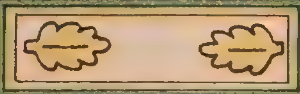
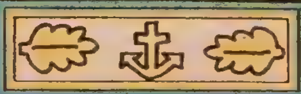
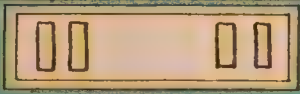
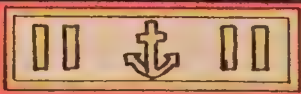
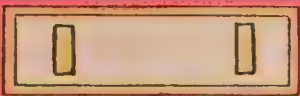
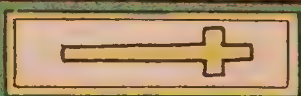
GEORGE WASHINGTON	1755-1783	ALEXANDER McCOMB	1828-1841
HENRY KNOX	1783-1784	WINFIELD SCOTT	1841-1861
ISIAH HARMER	1788-1791	GEORGE B. McCLELLAN	1861-1862
ARTHUR ST. CLAIR	1791-1796	HENRY W. HALLECK	1862-1864
JAMES WILKINSON	1796-1798	ULYSSES S. GRANT	1864-1869
GEORGE WASHINGTON	1799-1799	WM. T. SHERMAN	1869-1883
JAMES WILKINSON	1800-1812	PHILIP H. SHERIDAN	1883-1888
HENRY DEARBORN	1812-1815	JOHN M. SCHOFIELD	1888-1895
JACOB BROWN	1815-1828	NELSON A. MILES	1895-1903

SAMUEL B. M. YOUNG - 1903 - 1904 — EDNA R. CHAFFEE - 1904 -

RELATIVE RANK OF ARMY AND NAVY OFFICERS.

ARMY	RANKS WITH	NAVY.
GENERAL		ADMIRAL
LIEUTENANT-GENERAL		VICE-ADMIRAL
MAJOR-GENERAL		REAR-ADMIRAL
BRIGADIER GENERAL		COMMODORE
COLONEL		CAPTAIN
LIEUTENANT-COLONEL		COMMANDER
MAJOR		LIEUTENANT-COMMANDER
CAPTAIN		LIEUTENANT
LIEUTENANT		ENSIGN

ARMY AND NAVY INSIGNIA OF RANK.

	ARMY		NAVY
RANK	SHOULDER INSIGNIA	RANK	SHOULDER INSIGNIA
GENERAL		ADMIRAL	
LIEUTENANT-GENERAL		VICE-ADMIRAL	
MAJOR-GENERAL		REAR-ADMIRAL	
BRIGADIER-GENERAL			
COLONEL		CAPTAIN	
LIEUTENANT-COLONEL		COMMANDER	
MAJOR		LIEUT.-COMMANDER	
CAPTAIN		LIEUTENANT	
1ST LIEUTENANT		CHAPLAIN	

NAVY OF THE REVOLUTION.

In December, 1775, Congress passed an Act ordering the building of thirteen vessels, three of 24 guns, five of 28, five of 32, with Ezekiel Hopkins as Commander-in-Chief, as follows:

NAME.	No. of Guns.	HISTORY.
Hancock	32	Captured by the British in 1777.
Congress	28	Destroyed in the Hudson River to avoid capture in 1777, never having been to sea.
Montgomery	28	Destroyed in the Hudson River to avoid capture in 1777, never having been to sea.
Delaware	24	Captured in the Delaware River, 1777.
Randolph	32	Blown up in action with the British ship Yarmouth, 64 guns, in 1778.
Washington	32	Destroyed in the Delaware by the British before getting to sea, in 1778.
Effingham	28	Destroyed in the Delaware by the British before getting to sea, in 1778.
Raleigh	32	Captured by the British in 1778.
Virginia	28	Captured by the British in 1778, off the capes of Delaware, before getting to sea.
Warren	32	Burned in the Penobscot River in 1779, to prevent falling into the enemy's hands.
Providence	28	Seized by the British at the capture of Charleston, S. C., in 1780.
Boston	24	Seized by the British at the capture of Charleston, S. C., in 1780.
Trumbull	28	Captured by the British ship Watt, in 1781.

Owing to the superiority of England on the sea, and the great difficulties with which Congress had to struggle during the war, it was impossible to give any great attention to our naval armament; but, notwithstanding this, the waters swarmed with American privateers, and many hundreds of British merchantmen were captured. Probably the most daring naval exploit during the war was fought off the coast of Scotland, September 23, 1779, between the Bon Homme Richard, of 40 guns, Paul Jones, commander, and the Serapis, a British frigate of 44 guns, Captain Pearson. The Serapis surrendered, with a loss of 150. Jones lost 300 in killed and wounded, and while his ship was sinking transferred his crew to the Serapis.

The navy was disbanded at the close of the war, and the few remaining vessels were sold.

In addition to the "thirteen" vessels above named, about ten other vessels, ranging from 24 guns down to 10, were purchased and fitted out as cruisers while the others were building.

1799—Frigate Constitution captured the French frigate L'Insurgente.
1803—Frigate Philadelphia captured by the Tripolitans.
1804—Commodore Decatur destroyed the frigate Philadelphia.

NAVAL BATTLES, WAR OF 1812.

DATES.	Where Fought.	American Vessels and Commanders.	British Vessels and Commanders.
1812, Aug. 13	Off Newfoundland	Frigate Essex, Porter[1]	Sloop Alert, Laugharne.
Aug. 19	Off Massachusetts	Frigate Constitution, Hull[1]	Frigate Guerriere, Dacres.
Oct. 18	Off North Carolina	Sloop Wasp, Jones[1,2]	Frigate Frolic, Whinyates.
Oct. 25	Near Canary Islands	Frigate United States, Decatur[1]	Frigate Macedonian, Carden.
Dec. 29	Off San Salvador	Frigate Constitution, Bainbridge[1]	Frigate Java, Lambert.
1813, Feb. 24	Off Demerara	Sloop Hornet, Lawrence[1]	Brig Peacock, Peake.
June 1	Massachusetts Bay	Frigate Chesapeake, Lawrence	Frigate Shannon, Broke.[1]
Aug. 14	British Channel	Brigantine Argus, Allen	Sloop Pelican, Maples.[1]
Sept. 5	Off Coast of Maine	Brigantine Enterprise, Burrows[1]	Brig Boxer, Blythe.
Sept. 10	Lake Erie	9 vessels, 54 guns, Perry[1]	6 vessels, 63 guns, Barclay.
Oct. 5	Lake Ontario	Commodore Chancey	captures British Flotilla.
1814, Mar. 28	Harbor of Valparaiso	Frigate Essex, Porter	Brig Phœbe, Hillyar.[1] Sloop Cherub, Tucker.
April 20		Sloop Frolic	Brigantine Orpheus.
April 29	Off Coast of Florida	Sloop Peacock, Warrington[1]	Brig Epervior, Wales.
June 28	Near British Channel	Sloop Wasp, Blakely[1]	Sloop Reindeer, Manners.
	Stonington, Ct.	British fleet attack the	town; are repulsed.
Sept. 1	Near Africa	Sloop Wasp, Blakely[1]	Sloop Avon, Arbuthnot.
Sept. 11	Lake Champlain	14 vessels, 86 guns, McDonough[1]	17 vessels, 95 guns, Downie.
Sept. 15	Mobile Bay	Fort Boyer, Major Lawrence[1]	4 ships, 90 guns, Col. Nichols.
Dec. 9	Lake Borgue	66 gunboats, Jones	40 barges, Lockyer.[1]
1815, Jan. 15	Off New Jersey	Frigate President, Decatur	Squadron, Hayes.[1]
Feb. 20	Off Island of Madeira	Frigate Constitution, Stewart[1]	Ship Cyane, Falcon. Ship Levant, Douglas.
Mar. 23	Off Brazil	Sloop Hornet, Biddle[1]	Brig Penquin, Dickenson.

---

[1] Indicates the victorious party. [2] Afterward captured, with her prize, by the Poictiers, a British frigate of 74 guns.

The British vessels captured during the war of 1812 were 1,750, the American, 1,683.

INDIAN WARS.

1676. King Philip's War.
1704. Deerfield, Mass., burned.
1708. Haverhill, Mass., burned. Capture and escape of Mrs. Hannah Dustan.
1713. The Tuscaroras expelled from North Carolina.
1755. Braddock defeated by the French and Indians.
1763. Conspiracy of Pontiac.
1778. Massacre of Wyoming.
1794. Treaty with the Six Nations.
1804. Treaty with the Delawares.
1813. } 1814. } War with the Creeks in Florida.
1817. War with the Seminoles.
1832 War with Black Hawk. Stillman's defeat on Rock River.
1835. } 1842. } War with the Seminoles.
1837. Capture of Osceola.
1855. Defeat of the Rogue River Indians.
1856. War with the Indians in Oregon and Washington Territories.
1862. Indian War and massacres in Minnesota.
1854. (Nov. 29.) "Chivington's massacre" near Fort Lyon; over 500 Indians, men, women and children put to the sword.
1873. (April 2.) General Canby and Rev. E. Thomas, peace commissioners, treacherously slain by the Modocs.
1873. (Oct. 13.) Execution of the Modoc murderers of Messrs. Canby and Thomas—Captain Jack, Schonkin, Boston Charley, and Black Jim.
1876. (June 25.) The command of General Custer defeated by the Indians on Big Horn River, and General Custer and his entire force of 313 cavalrymen slain.

PRINCIPAL BATTLES OF THE MEXICAN WAR.

THE AMERICANS WERE VICTORIOUS IN EVERY CONFLICT.

PLACE OF BATTLE.	DATE.	COMMANDERS.		AMERICAN.		MEXICAN.	
		American.	Mexican.	Engaged.	Casualties.	Engaged.	Casualties.
Bracite	Dec. 25, 1846	Doniphan	Ponce de Leon	500		1,200	
Buena Vista	Feb. 23, 1847	Taylor	Santa Anna	4,700	723 k. & w.	17,000	2,000 k. & w.
Cerro Gordo	April 18, 1847	Scott	Santa Anna	8,500	500 k. & w.	12,000	500 k. & w.
Chapultepec	Sept. 13, 1847	Scott	Bravo	7,200	Slight.	25,000	Heavy.
Contreras	Aug. 20, 1847	Scott	Valencia	4,000	Slight.	7,000	2,500 k. & w.
Churubusco		Scott	Santa Anna	8,000	700 k. & w.	25,000	700 k. & w.
Huamantha	Oct. 9, 1847	Lane	Santa Anna	500	24 k. & w.	1,000	Unknown.
Mexico	Sept. 14, 1847	Scott	Santa Anna	6,000			Surrender.
Moline del Rey	Sept. 8, 1847	Worth	Alvarez	3,500	787 k. & w.	14,000	200 k. & w.
Monterey	Sept. 24, 1846	Taylor	Ampudia	6,600	120 k. & 368 w.	10,000	
Palo Alto	May 8, 1846	Taylor	Arista	2,100	4 k. & 40 w.	6,000	
Resaca de la Palmo	May 9, 1846	Taylor	Arista	2,000	120 k. & w.	5,000	500 k. & w.
Sacramento	Feb. 28, 1847	Doniphan	Trias	900		4,000	
Vera Cruz	March 27, 1847	Scott	Morales	12,000	19 k. &. w.	6,000	2,000 k. & w.

The only naval engagements of importance during the war with Mexico were the bombardment of Vera Cruz, by Commodore Conner which lasted four days, and the bombardment of Monterey, by Commodore Sloat, both cities being forced to surrender.

PRINCIPAL ENGAGEMENTS OF THE CIVIL WAR, 1861–65.

PLACE OF BATTLE.	DATE.	COMMANDERS.		CASUALTIES.		REMARKS.
		Union.	Confederate.	Union.	Confederate.	
Antietam, Md.	Sept. 17, 1862	McClellan	Lee	k. 2108 w. 9549 m.753	k. 1695 w.9109 m.1708	Brig. Gen. Mansfield killed.
Atlanta, Ga.	July 22, 1864	Sherman	Hood			McPherson, Union, killed.
" " Campaign	August 31, 1864	"	"	k.4988 w.24827 m.4708	k.3117w.19,393m.1298	
Averyboro, N. C.	March 16, 1865	"	Johnston	74 k. 774 w.	k. 108 w. 540 m. 217	
Ball's Bluff or Leesburg, Va.	Sept. 21, 1861	Baker	Evans	k. 220, w. 266, m. 500.	k. 36, w. 117, m. 2	Col. Baker killed.
Bentonville, N. C.	March 19, 1865	Sherman	Johnston	k. & w. 1356	k. 239, w. 1604, m. 673	
Bull Run, Va.	July 21, 1861	McDowell	Beauregard	k. & w. 1492	k. 105, w. 519, m. 12	
Big Bethel, Va.	June 10, 1861	Price	Magruder	Not reported	k. 18, w. 53. m. 5	
Baton Rouge, La.	August 5, 1862	Williams	Brecken'ge	k. & w. 383	k. 84, w. 313, m. 453	Gen. Williams killed.
Big Black River, Miss.	May 16, 1863	Grant	Pemberton	k. 39, w. 237, m. 3	Not reported	17 cannon captured.
Beverly Ford, or Brandy Station, Va.	June 9, 1863	Buford	Stuart	k. & w. 866	k. 59, w. 280, m. 184	
Belmont, Mo.	Nov. 7 1861	Grant	Polk	k. w. & m. 501	k. 105, w. 419, m. 117	
Bolton, Miss.	July 5, 1863	"	Johnston	——	——	Part of Jackson's campaign.
Bristoe Station	August 27, 1862	McDowell	Jackson	k. 52, w. 359, m. 160	k. 136, w. 847, m. 445	
Second Bull Run or Manassas, Va.	August 30, 1862	Pope	Lee	k.1747, w.8452, m.4263	k. 1148, w. 7627, m. 89	
Bristow, Va.	Oct. 14, 1863	Warren	Hill	k. & w. 546	k. 136, w. 797, m. 445	
Bunker Hill, Va.	Sept. 19, 1864	Sheridan	Early	——	——	Gen. Rhodes killed. Skirmish.
Cedar Creek, Va.	Oct. 19, 1864	"	"	k. 644, w.3430, m.1591	k. 320, w.1540, m. 1050	
Chickamauga, Ga.	Sept. 19–20, 1863	Rosecrans	Bragg	k. w. & m. 11,135	k. w. & m. 15,801	
Chattanooga, Tenn.	Nov. 23–25, 1863	Grant	"	k. 752, w. 4713, m. 350	k. 361, w. 2180, m.4146	
Cold Harbor, Va.	June 1, 1864	"	Lee	k.1844, w.9077, m.1816	——	
Carthage, Mo.	July 5, 1861	Sigel	Price	k. 34, w. 16	No report	
Chickahominy, Va.	June 26, 1862	McClellan	Lee	——	——	Skirmish.
Cedar Mountain, Va.	August 9, 1862	Banks	Jackson	k. & w. 2381	k. 223, w. 1060, m. 31	
Chantilly, Va.	Sept. 1, 1862	Pope	Lee			Gens. Kearney and Stephens [killed. See Second Manassas.
Champion Hills, Miss.	May 12, 1863	Grant	Pemberton	k. w. & m. 2441	k. 380, w. 1018	
Chancellorsville, Va.	May 2–3, 1863	Hooker	Lee	k. w & m. 17,287	k.1665, w.9091, m.2018	Gen. Jackson killed.
Corinth, Miss.	Oct. 3–5, 1862	Hurlburt	Van Dorn	k. 355, w. 1841, m. 324	k.1505, w.2150, m. 2283	Gen. Hackleman killed.
" "	May 30, 1862	Halleck	Beauregard	——	——	
Cheat Mountain, W. Va.	Sept. 12–14, 1861	Reynolds	Lee	k. 13, w. 20, m. 60	k. & w. 100	
Cross Keys, Va.	June 8, 1862	Fremont	Jackson	k. w. & m. 625	k. 56, w. 392, m. 47	
Cumberland Gap, Tenn.	Sept. 9, 1863	Burnside	Frazier	——	p. 200	Frazier surrendered.
Deep Bottom, Va.	Aug. 15–18, 1864	Grant	Lee	——	——	Skirmish.
Dallas or New Hope, Ga.	May 25–28, 1864	Sherman	Longstreet	k. w. & m. 2800	k. 309, w. 1921	
Fort Henry, Tenn.	Feb. 8, 1862	Grant	Tilghman	——	——	Fort surrendered after bom-[bardment. No losses.
Fort Donelson, Tenn.	Feb. 16, 1862	"	Buckner	k. w. & m. 2832	k.466, w.1534, m.13,829	
Fair Oaks, Va.	May 31, 1862	McClellan	Johnston	k. w. & m. 4384	k. w. & m. 5729	Federals driven back. Lost [1,222 prisoners.
" "	June 1, 1862	"	"	k. & w. 5739	k. &. w. 8,000	
Fort Donelson, Tenn.	Feb. 15, 1863	Harding	Wheeler	k. 20, w. 12	k. 100, w. 400	
Fort Hindman, Arkansas Post, Ark.	Jan. 11, 1863	McClern'd	Churchill	k. 210, w. 1309, m. 40	k. 60, w. 80	Surrendered.
Fredericksburg, Va.	Dec. 13, 1862	Burnside	Lee	k. w. & m. 12,653	k. 596, w. 4068, m. 651	Federals lost 2,078 prisoners.
" "	May 2, 1863	Sedgwick	Longstreet	k. & w. 2000	No report	
Fort Wagner. S. C.	July 18–19, 1863	Gilmore	Beauregard	k. w. & m. 1515	k. 36, w. 140. m. 5	

PRINCIPAL ENGAGEMENTS OF THE CIVIL WAR, 1861–65—(Continued).

Place of Battle.	Date.	Commanders.		Casualties.		Remarks.
		Union.	Confederate.	Union.	Confederate.	
Fort Darling, Va.	May 12–15, 1864	Butler	Beauregard	——	——	See Drewry's Bluff.
Fisher's Hill, Va.	Oct. 21, 1864	Sheridan	Early	k. w. & m. 528	k. 30, w. 210, m. 995	Gen. Gordon killed.
Franklin, Tenn.	Nov. 30, 1864	Schofield	Hood	k. 189, w. 1033, m. 104	k. 1750, w. 3800, m. 702	
Fort Fisher, S. C.	Jan. 15, 1864	Terry	——	k. 184, w. 749, m. 22	——	Fort and 72 guns captured.
Five Forks, Va.	April 1, 1865	Sheridan	Lee	——	——	Lee's artillery captured. Appomattox campaign.
Fort Blakely, Mobile	April 11, 1865	Canby	Taylor	Not reported	p. 3000	
Gaines' Mill, Va.	June 27, 1862	Porter	Lee	k. 894, w. 3107, m. 2836	k. 589, w. 2671, m. 24	Partial report.
Gallatin, Tenn.	August 22, 1862	Johnson	Morgan	k. 64, w. 100, m. 200	k. & w. 110	Gen. Johnson captured.
Gettysburg, Pa.	July 1–2–5, 1863	Meade	Lee	k. 3072, w. 14497, m. 5434	k. 2592, w. 12709, m 5150	
Groveton, Manassas, Va.	August 21, 1862	Hooker	Jackson	14, 462	k. 1481, w. 7627, m. 89	
Harper's Ferry, Va.	Sept. 15, 1862	Miles	Hill	k. 80, w. 120	5	Col. Miles killed. Confederates captured 11,583 pris.
Hanover C. H., Va. See Mechanicsville, and Gaines' Mill	May 29, 1862	Morrell	Branch			Gens. Marmaduke and Cabell captured.
Helena, Ark.	July 4, 1863	Prentiss	Marmad'ke	239	k. 173, w. 645, m. 772	
Hatcher's Run, Va.	Oct. 27, 1864	Grant	Lee	k. 156, w. 1047	1902	
Island No. 10 in Miss. R.	April 10, 1862	Foote	Mackall		k. 17, p. 6,300	
Iuka, Miss.	Sept. 19, 20, 1862	Rosecrans	Price	k. 141, w. 613, m 36	k. 86, w. 408, m. 199	
Ironton, Mo.	Sept. 26, 1864	Ewing	"	k. 9, w. 60	No report	
Jackson, Miss.	May 12, 1863	Grant	Johnston	1122	k. 71, w. 504, m. 765	
Kingston, N. C.	Feb. 27, 1865	Schofield	Bragg	k. & W. 300	k. 182, w. 768, m. 192	
Kennesaw, Ga.	June 27, 1864	Sherman	Johnston	2578	522	Confederate General Polk killed.
Knoxville, Tenn., including Fort Saunders.	Dec. 4, 1863	Burnside	Longstreet	687	k. 198, w. 850, m. 1296	
Kettle Run, Va.	August 27, 1862	Hooker	Ewell			See Manassas.
Lexington, Mo.	August 20, 1861	Mulligan	Price	k. 39, w. 120, m. 1624	k. 25, w. 75	Federals lost 1,624 prisoners.
La Grange, Ark.	May 1, 1863	De Huff		k. 3, w. 8, m. 30	No report	
Locust Grove, Va.	Nov. 27–30, 1863	Meade	Lee	k. 3, w. 8, m. 30	No report	
Milford, Mo.	Dec. 18, 1861	J. C. Davis		k. 2, w. 17	p. 1300	
Mill Spring, Ky.	Jan. 19, 1862	Thomas	Zollicoffer	k. 40, w. 207, m. 15	k. 125, w. 309, m. 95	Gen. Zollicoffer killed.
Malvern Hill, Va.	July 1, 1862	McClellan	Lee	1,000 k. & w.	k. 377, w. 1746, m. 39	
Milliken's Bend, Miss.	June 6, 1863	Thomas	McCullo'gh			See Vicksburg.
Missionary Ridge, Tenn.	Dec. 25, 1863	Hooker	Bragg	See Chattanooga		
Mansfield, La.	April 8–9, 1864	Banks	Taylor	No report	k. & w. 2000	Confederates captu'd 21 pieces artillery and 3,000 prisoners.
Monocacy, Md.	July 9, 1864	Wallace	Early	k. 123, w. 603, m. 568	No report	
Mobile Bay	Aug. 5–20, 1864	Farragut	Page	k. 120, w. 88	No report, p. 1756	
New Berne, N. C.	March 14, 1862	Burnside	Branch	k. 91, w. 466	k. 64, w. 101, m. 413	
Nashville, Tenn.	Dec. 15, 1864	Thomas	Hood	k. 387, w. 2562, m. 112	No report	
Piketon, Ky.	Nov. 8, 1861	Nelson		k. 6, w. 24	k. 10, w. 8	
Pea Ridge, Ark.	March 8, 1862	Curtis	Van Dorn	k. 203, w. 980, m. 201	k. w. & m. 1300	
Pittsburg Land'g, Tenn.	April 6–7, 1862	Grant	Johnston			See Shiloh.
Port Royal, S. C.	Nov. 7, 1861	Dupont	Drayton	k. 3, w. 23	No report	
Port Republic, Va.	June 9, 1862	Shields	Jackson	1018	k. 78, w. 534, m. 4	
Perryville, Ky.	Oct. 8, 1862	Buell	Bragg	k. 916, w. 2943, m. 489	k. 510, w. 2635, m. 251	
Prairie Grove, Ark.	Dec. 7, 1862	Blunt	Hindman	1317	k. 164, w. 817,	
Port Hudson	May 24, 1863	Banks	Gardner	k. 708, w. 3336, m. 319	k. 176, w. 623, p. 5500	Gardner surrendered.
Paducah, Ky.	March 26, 1864	Hicks	Forrest	k. 14, w. 46	k. & w. 25	
Plymouth, N. C.	April 17, 20, 1864	Wessells	Hoke	k. w. & m. 2834	No report	
Petersburg, Va.	Campaign from June 15, to Dec. 31, 1864	Grant	Lee	k. 5099, w. 24879, m17576	Repts. not complete	Richmond taken.
Peach Tree Creek, Ga,	July 20, 1864	Sherman	Hood	k. & w. 9719	k. 1341, w. 7.5[illegible]0	
Riot in Baltimore	April 19, 1861	6 Reg. Mass.		k. 4, w. 30	k. 9, w. 8	
Roanoke Island, N. C.	Feb. 8, 1862	Burnside	Wise	k. 47, w. 214, m. 13	k. 23, w. 58, m. 2527	Confederates surrendered.
Richmond, Ky.	Aug. 29–30, 1862	Mason	K. Smith	k. 206, w. 844, p. 4828	k. 78, w. 372, m. 1	
Ringgold, Ga.	Nov. 27, 1863	Hooker	Hardee	No circumstantial	reports	
Resaca, Ga.	May 13–15, 1864	Sherman	Johnston	k. 612, w. 2147	Loss 2680	
Rich Mountain, W. Va.	July 12, 1861	McClellan	Pegram	k. 12, w. 49	k. 47, w. 25	Confederates surrendered.
South Mountain, Md.	Sept. 14, 1862	Hooker	Lee			See Antietam.
Stone River, (Murfreesboro) Tenn.	Jan. 1, 1863	Rosecrans	Bragg	k. 1730, w. 7802, m. 3717	k. 1294, w. 7945, m. 989	Losses Murfreesboro camp'gn.
Suffolk, Va.	May 1, 1863	Nixon		k. 41, w. 223, m. 2	No report	
Shelbyville, Tenn.	June 26, 1863	Rosecrans	Bragg			
Shiloh, Tenn.	April 6–7, 1862	Grant	Johnston	k. 1754, w. 8408, m. 2885	k. 1723, w. 8012, m. 957	Gen. Johnston killed.
Spottsylvania, Va.	May 7–12, 1864	"	Lee	k. 2725, w13,416, m2528	k. w. & m. 4051	Reports incomplete.
Six Mile House, Va.	August 19, 1864	Warren	Pickett	k. 212, w. 1155, m. 3176	No report	
Selma, Ala.	April 2, 1865	Wilson	Forrest			
Surrender of Lee	April 12, 1865	Appomattx			28,231 surrendered	
Vicksburg Camp'n, Miss.	Dec. 27–29, 1862	Sherman	Johnston	k. 1514, w. 7395, m. 453	k. 1260, w. 3572, p. 29491	
" " "	May 18–23, 1863	Grant	Pemberton			
" " "	July 4, 1863	"	"			City surrendered.
Waynesboro, Va.	March 2, 1865	Sheridan	Early			See Petersburg, Va.
Weldon, Va.	June 22–23, 1864	Grant	Lee	k. 604, w. 2494, m. 2217	No report	Federals lost 3,000 prisoners.
Wilderness	May 5–7, 1864	"	"	k. 5597, w21463, m10677	Loss 11,400	
Wilmington, N. C.	Feb. 20–22, 1865	Schofield	Bragg			
Wilson's Creek, Mo.	August 10, 1861	Lyon	Price	k. 223, w. 721, m. 291	k. 265, w. 800, m. 30	Gen. Lyon killed.
Winchester, Va.	March 11, 1862	Shields	Jackson	k. 38, w. 155, m. 74	k. 39, w. 172, m. 3	
Williamsburg, Va.	May 5, 1862	Kearney	Longstreet	k. 456, w. 1400, m. 372	k. 288, w. 975, m. 297	Federals lost 623 prisoners.
Winchester, Va	July 12, 1864	Sheridan	Early		k. 47, w. 219, m. 3	
" "	June 14, 1863	Milroy	Ewell	Loss 4443		

These statistics are authentic, being secured from Official Reports of the generals commanding the armies engaged, by General Marcus J Wright, of the War Department, Washington, D. C.

THE CIVIL WAR OF 1861–65.

NUMBER OF MEN IN THE UNION ARMY FURNISHED BY EACH STATE AND TERRITORY, FROM APRIL 15, 1861, TO CLOSE OF WAR.

States and Territories.	Number of Men Furnished.	Aggregate Reduced to a Three Years' Standing.	States and Territories.	Number of Men Furnished.	Aggregate Reduced to a Three Years' Standing.
Alabama	2,556	1,611	New York	448,850	392,270
Arkansas	8,289	7,836	North Carolina	3,156	3,156
California	15,725	15,725	Ohio	313,180	240,514
Colorado	4,903	3,697	Oregon	1,810	1,773
Connecticut	55,864	50,633	Pennsylvania	337,936	265,517
Delaware	12,284	10,322	Rhode Island	23,236	17,866
Florida	1,290	1,290	South Carolina	....	....
Georgia	....	....	Tennessee	31,092	26,394
Illinois	259,092	214,133	Texas	1,965	1,632
Indiana	196,363	153,576	Vermont	33,288	29,068
Iowa	76,242	68,630	Virginia	....	....
Kansas	20,149	18,706	West Virginia	32,068	27,714
Kentucky	75,760	70,832	Wisconsin	91,327	79,260
Louisiana	5,224	4,654	Dakota	206	206
Maine	70,107	56,776	District of Columbia	16,534	1,506
Maryland	46,638	41,275	Indian Territory	3,530	3,530
Massachusetts	146,730	124,104	Montana	....	....
Michigan	87,364	80,111	New Mexico	6,561	4,432
Minnesota	24,020	19,693	Utah	....	....
Mississippi	545	545	Washington	964	964
Missouri	109,111	86,530	U. S. Army	....	....
Nebraska	3,157	2,175	U. S. Volunteers	....	....
Nevada	1,080	1,080	U. S. Colored Troops[1]	99,337	99,434
New Hampshire	33,937	30,849			
New Jersey	76,814	57,908	Total	2,778,304	2,320,369

[1] Colored troops organized at various stations in the States in rebellion, embracing all not specifically credited to States, and which cannot be so assigned.

The number of casualties in the volunteer and regular armies of the United States, during the war of 1861–65, according to a statement prepared by the Adjutant-General's office, was as follows: Killed in battle, 67,058; died of wounds, 43,012; died of disease, 199,720; other causes, such as accidents, murder, Confederate prisons, etc., 40,154; total died, 349,944; total deserted, 199,105. Number of soldiers in the Confederate service who died of wounds or disease (partial statement), 133,821. Deserted (partial statement), 104,428. Number of United States troops captured during the war, 212,608; Confederate troops captured, 476,169. Number of United States troops paroled on the field, 16,431; Confederate troops paroled on the field, 248,599. Number of United States troops who died while prisoners, 22,570; Confederate troops who died while prisoners, 30,152.

TOTAL NUMBER OF TROOPS CALLED INTO SERVICE FROM THE NORTHERN STATES DURING THE CIVIL WAR.

Date of President's Proclamation.	Number Called for.	Period of Service.	Number Obtained.	Date of President's Proclamation.	Number Called for.	Period of Service.	Number Obtained.
April 15, 1861	75,000	3 months.	93,326	October 17, 1863	300,000	2 years.	374,807
May 3, 1861	82,748	3 years.	714,231	February 1, 1864	200,000		
July 22 and 25, 1861	500,000			March 14, 1864	200,000	3 years.	284,021
May and June, 1862	....	3 months.	15,007	April 23, 1864	85,000	100 days.	83,652
July 2, 1862	300,000	3 years.	431,958	July 18, 1864	500,000	1,2, 3 years.	384,882
August 4, 1862	300,000	9 months.	87,588	December 19, 1864	300,000	1,2, 3 years.	204,568
June 15, 1863	100,000	6 months.	16,361	Total	2,942,748		2,690,401

WARS OF THE UNITED STATES—STATEMENT OF THE NUMBER OF UNITED STATES TROOPS ENGAGED.

Wars.	From	To	Regulars.	Militia and Volunteers.	Total.
Apache, Navajo and Utah War	1849	1855	1,500	1,061	2,561
Aroostook disturbance	1838	1839	....	1,500	1,500
Black Hawk Indian War	April 21 1831	Sept. 31, 1832	1,339	5,126	6,465
Cherokee disturbance or removal	1836	1837	....	9,494	9,494
Civil War	1861	1865	....	....	2,772,408
Creek Indian War	July 27, 1813	August 9, 1814	600	13,181	13,781
Creek Indian War or disturbance	May 5, 1836	Sept. 30, 1837	935	12,483	13,418
Florida Indian War	Dec. 23, 1835	August 14, 1843	11,169	29,953	41,122
Northwestern Indian Wars	Sept. 19, 1790	August 3, 1795	....	....	8,983
Philippine War	Feb. 4, 1899	1900	10,000	55,000	65,000
Seminole Indian War	Nov. 20, 1817	Oct. 21, 1818	1,000	6,911	7,911
Seminole Indian War	1856	1858	....	3,687	3,687
Spanish-American War	April 21, 1898	August 12, 1898	20,000	160,000	180,000
War with France	July 9, 1798	Sept. 30, 1800	....	....	4,593
War of 1812 with Great Britain	June 18, 1812	Feb. 17, 1815	85,000	471,622	556,622
War with Mexico	April 24, 1846	July 4, 1848	30,954	73,776	104,730
War of the Revolution	April 19, 1775	April 11, 1783	130 711	164,080	294,791
War with Tripoli	June 10, 1801	June 4, 1805	....	....	3,330

STRENGTH OF VOLUNTEER FORCES OF UNITED STATES CALLED INTO SERVICE DURING THE WAR WITH SPAIN, WITH LOSSES AS SHOWN BY THE MUSTER-OUT ROLLS.

Under the head of "Died" are included those killed, died of wounds, of disease, accident, drowning, suicide, wounds. The column headed "Discharged" includes those discharged by military order, as it was seen that their services were no longer required.

	Strength at Muster in.		Strength at Muster out.		Total number accounted for on muster-out roll.		Losses While in Service.								
							Officers.				Enlisted Men.				
	Officers.	Men.	Officers.	Men.			Promoted or Transferred.	Resigned or Discharged.	Died.	Total.	Transferred.	Discharged.	Died.	Deserted.	Total.
General officers and staff	*a*1,010	1,329	254	....	1,010	1,329	33	703	20	756	.....	1,306	22	1	1,329
Alabama	141	3,061	144	3,007	158	3,864	3	10	1	14	410	229	44	174	857
Arkansas	91	1,934	92	2,049	108	2,728	....	15	1	16	135	430	51	63	679
California	186	4,441	196	4,587	232	5,587	....	35	1	36	104	767	75	54	1,006
Colorado	49	1,076	49	1,041	70	1,367	7	13	1	21	32	256	35	3	326
Connecticut	100	2,436	103	2,850	124	3,127	....	20	1	21	13	168	38	58	277
District of Columbia	49	922	49	810	53	937	....	3	1	4	32	73	22	.....	127
Delaware	47	969	43	836	51	977	....	8	....	8	2	85	8	46	141
Florida	48	956	48	1,135	54	1,296	....	5	1	6	24	89	29	19	161
Georgia	142	3,389	144	3,094	165	4,218	....	20	1	21	131	838	53	102	1,124
Idaho	32	644	32	444	50	678	....	17	1	18	22	189	21	2	234
Illinois	489	10,453	487	11,667	547	13,100	4	50	6	60	285	827	281	40	1,433
Indiana	260	5,564	259	6,408	281	7,142	1	18	3	22	214	406	69	45	734
Iowa	206	3,354	202	4,403	230	5,464	1	23	3	28	133	762	160	6	1,061
Kansas	167	3,735	166	3,957	229	4,795	....	56	4	63	129	571	110	28	838
Kentucky	186	4,559	199	4,756	217	5,397	1	17	....	18	120	300	89	132	641
Louisiana	101	2,255	96	2,223	122	2,794	2	17	7	26	163	335	28	55	571
Maine	61	1,444	61	1,668	67	1,826	1	3	2	6	22	47	49	40	158
Maryland	91	1,979	98	2,299	114	2,597	....	15	1	16	28	182	32	56	298
Massachusetts	277	5,515	274	6,100	321	6,792	2	37	7	47	111	278	294	31	692
Michigan	233	5,185	231	5,655	262	6,579	....	26	5	31	160	523	205	36	924
Minnesota	196	4,222	196	4,462	229	5,151	....	30	3	33	90	490	90	19	689
Mississippi	108	2,512	115	2,695	125	3,036	....	8	2	10	68	141	57	72	341
Missouri	271	6,234	278	6,978	327	8,083	1	45	3	49	198	657	115	135	1,105
Montana	48	976	48	673	78	1,054	....	28	2	30	71	265	35	10	381
Nebraska	137	3,232	136	2,938	200	3,846	23	36	5	64	35	748	117	8	908
Nevada	15	481	16	327	17	505	....	1	....	1	.....	173	1	4	178
New Hampshire	47	952	47	1,234	60	1,309	....	10	3	13	14	19	29	13	75
New Jersey	184	4,163	193	4,522	237	5,264	....	44	....	44	73	549	40	80	742
New York	705	15,924	717	17,238	927	19,937	29	171	10	210	290	1,478	417	514	2,699
North Carolina	145	2,840	139	3,263	164	3,802	1	23	1	25	25	374	63	77	539
North Dakota	27	658	31	507	48	671	....	17	....	17	23	123	17	.....	164
Ohio	485	9,557	508	12,407	573	13,682	10	47	8	65	252	725	225	73	1,275
Oregon	56	1,182	50	1,234	62	1,508	....	12	....	12	45	171	55	3	274
Pennsylvania	619	11,696	614	14,636	709	16,739	3	82	10	95	288	1,512	239	64	2,103
Rhode Island	54	1,170	51	1,251	76	1,578	7	18	....	25	78	148	12	89	327
South Carolina	90	2,060	99	2,077	104	2,514	....	4	1	5	49	255	39	94	437
South Dakota	46	983	46	622	70	1,064	....	20	4	24	58	320	60	4	442
Tennessee	187	4,148	183	3,993	235	6,031	9	40	3	52	808	902	78	249	2,038
Texas	231	5,054	230	4,824	259	6,506	1	27	11	29	168	1,355	61	98	1,682
Utah	15	429	16	443	23	555	....	7	....	7	.....	97	14	1	112
Vermont	48	980	49	925	52	992	....	2	1	3	30	9	26	2	67
Virginia	164	3,709	166	4,249	194	5,029	5	21	2	28	112	570	68	30	780
Washington	60	1,379	60	1,180	87	1,767	....	26	2	27	87	428	44	28	587
West Virginia	88	2,245	92	2,196	110	2,584	....	17	....	18	67	206	34	81	388
Wisconsin	198	4,293	195	4,863	211	5,242	1	13	2	16	118	125	128	8	379
Wyoming	17	446	17	296	23	453	....	5	1	6	17	109	15	16	157
U. S. Volunteers	763	16,992	780	14,499	1,003	18,717	52	158	12	223	770	2,762	380	306	4,218
Total	8,970	173,717	*a*8,299	183,521	*b*10,668	*b c*220,213	198	2,015	148	*b*2,369	6,104	*c*23,363	4,156	3,069	*b*36,692

a On the lines of the general officers and staff corps, in the column under the heading, "Strength at muster in," the total number appointed or enlisted is shown, and in the column under the heading, "Strength at muster out," the number remaining in service November 30, 1899, is stated.

b From this total should be deducted the number of officers and enlisted men, accounted for under the headings "Promoted" or "Transferred," as they were promoted or transferred in their own regiments, or to other organizations in the Volunteer service, therefore, being no loss. Also 453 officers of the Regular Army who held commissions in the Volunteers.

c From this total should be deducted 891. This number having been appointed to be commissioned officers, and so accounted for. The total number, therefore, furnished was:—

Officers	10,017
Enlisted men	213,218
Total	223,235

PRINCIPAL NAVAL BATTLES OF THE CIVIL WAR.

1862, Feb. 6—Fort Henry, Tenn., captured by Commodore Foote.
Feb. 8—Roanoke Island, N. C., captured by Commodore Goldsborough and General Burnside.
Feb. 16—Fort Donelson, Tenn., combined forces of General Grant and Commodore Foote.
Mar. 8—Confederate ram Merrimac "sinks" U. S. frigates Cumberland and Congress, Hampton Roads, Va.
Mar. 9—Federal Monitor disables the Merrimac.
April 6—Pittsburg Landing.
April 8—Capture of Island No. 10.
April 11—Fort Pulaski, Ga., captured by land and naval forces.
April 24—Forts Jackson, St. Phillip, and New Orleans.
May 13—Natchez, Miss., captured by Admiral Farragut.
July 1—Malvern Hill.
1863, Jan. 11—Fort Hindman, Ark., Admiral Porter.
Jan. 11—U. S. steamer Hatteras sunk by Confederate Alabama.
Jan. 17—Monitor Weehawken captures Confederate ram Atlanta.
May 18—Vicksburg, Miss., Admiral Porter.
July 8—Port Hudson, Miss., captured.
July 8—Natchez, Miss.
1864, June 19—U. S. steamer Kearsarge "sinks the Alabama" off Cherbourg, France.
Aug. 5—Mobile, Ala., Admiral Farragut.
1865, Jan. 15—Fort Fisher, N. C., captured by General Terry and Commodore Porter.

During the Civil War the Federal Navy was increased in two years to over 400 vessels, the greater part of which were used in blockading Southern ports; notwithstanding their vigilance and effectiveness, many Confederate cruisers managed to escape the blockade and a large number of Northern merchant vessels.

FEDERAL VESSELS CAPTURED OR DESTROYED BY CONFEDERATE "CRUISERS."

Ships	80	Steamboats	4
Brigs	46	Gunboats	2
Barks	84	Cutter	1
Schooners	67	Tug	1

VESSELS CAPTURED OR DESTROYED FOR VIOLATION OF THE BLOCKADE, OR IN BATTLE, FROM MAY, 1861, TO MAY, 1865.

Schooners	735	Propellers	4
Sloops	155	Pilot Boats	2
Steamers	262	Boats	8
Barks	27	Yachts	2
Brigs	30	Tugs	3
Ships	13	Barkentine	1
Ironclads and Rams	16	Pungy	1
Brigantines	2	Miscellaneous	86
Gunboats	3		

STATEMENT OF CASUALTIES IN THE MILITARY FORCES OF THE UNITED STATES.

In Part VI of the Final Report of the Provost-Marshal-General of the Army, General James B. Fry, to the Secretary of War, dated March 17, 1866, appears the following statement of casualties in the Federal military forces during the Civil War:

Causes.	Regulars.			White Volunteers.			Colored Troops.			Aggregate.		
	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.
Killed	157	1,890	2,047	3,345	54,056	57,401	124	1,790	1,914	3,626	57,736	61,362
Died of wounds	. . .	. . .	. . .	1,595	32,095	33,690	46	1,037	1,083	1,641	33,132	34,773
Died of disease	83	2,749	2,832	2,141	152,013	154,154	90	26,211	26,301	2,314	180,973	183,287
Accidentally killed	. . .	. . .	. . .	12	294	306	. . .	. . .	. . .	12	294	306
Executed by sentence	. . .	1	1	. . .	6	6	. . .	. . .	. . .	. . .	7	7
Missing in action	33	1,266	1,299	72	4,085	4,157	18	1,275	1,293	123	6,626	6,749
Honorably discharged	2	1,201	1,203	10,805	159,764	170,569	427	2,378	2,805	11,234	163,343	174,577
Discharged for disability	2	5,089	5,091	3,058	209,102	212,160	166	6,889	7,055	3,226	221,080	224,306
Dishonorably discharged	. . .	275	275	186	2,023	2,209	18	191	209	204	2,489	2,693
Dismissed	122	. . .	122	2,143	. . .	2,143	158	. . .	158	2,423	. . .	2,423
Cashiered	6	. . .	6	252	. . .	252	16	. . .	16	274	. . .	274
Resigned	390	. . .	390	21,090	. . .	21,090	801	. . .	80	22,281	. . .	22,281
Deserted	5	16,360	16,365	187	170,029	170,216	24	12,440	12,464	216	198,829	199,045
Total of Casualties	800	28,831	29,631	44,886	783,467	828,353	1,888	52,211	54,099	47,574	864,509	912,086

In this table men who were mustered out at expiration of their term of service or at the close of the war are not included.

The foregoing statement gives the loss by death among

White officers and men, in which are included the officers of the colored troops, as they were almost without exception white	250,697
Colored men	29,038
Total	279,735

STATISTICS OF PHILIPPINE WAR.

Statistics of the Philippine war prepared by Major James Parker for the use of the Government show the following:

Number of engagements February 4, 1899, to April 30, 1902 (end of war)	2,561
(In no case did American troops have to retreat, or surrender, or leave dead and wounded on the field.)	
Officers sent to Philippines to July 16, 1902	4,135
Enlisted men sent to Philippines to July 16, 1902	123,803
Officers killed or died of wounds	69
Enlisted men killed or died of wounds	936
Officers dead from disease	47
Enlisted men dead from disease	2,535
Officers dead from accident	6
Enlisted men dead from accident	125
Officers drowned	6
Enlisted men drowned	257
Officers dead from suicide	10
Enlisted men dead from suicide	72
Officers murdered	1
Enlisted men murdered	89
Total deaths of officers	139
Total deaths of enlisted men	4,016
Officers wounded	190
Enlisted men wounded	2,707
Total wounded	2,897
Per cent of killed and wounded to strength of army	9.7

LENGTH AND COST OF AMERICAN WARS.

	LENGTH.	COST.
1. War of the Revolution . . .	7 years—1775—1782	$135,193,703
2. Indian War in Ohio Territory	1790	
3. War with the Barbary States	1803—1804	
4. Tecumseh Indian War . . .	1811	
5. War with Great Britain . . .	3 years—1812—1815	107,159,003
6. Algerine War	1815	
7. First Seminole War	1817	
8. Black Hawk War	1832	
9. Second Seminole War . .	1845	
10. Mexican War	2 years—1846—1848	66,000,000
11. Mormon War	1856	
12. Civil War	4 years—1861—1865	6,500,000,000
13. Spanish-American War . . .	113 days—1898	150,000,000
14. Philippine War	2 years—1899—1902	169,000,000

SPANISH-AMERICAN WAR—THE ARMY.

1898.	OUR LOSSES.	
	Killed.	Wounded
Bombardment of Cienfuegos, May 11	1	11
Bombardment of San Juan, May 12	1	7
Guantanamo, June 11–20	6	16
Bombardment of Santiago, June 22	1	9
Santiago Campaign, June 21–July 17	260	1341
Porto Rico Campaign, July 25–28	3	40
The Reduction of Manilla, August 13	17	106

SPANISH-AMERICAN WAR—THE NAVY.

1898, May 1	In Manila Bay, Philippine Islands.	*American Vessels.*—Olympia, Baltimore, Raleigh, Boston, Concord, Petrel.	*Spanish Vessels.*—Reina Cristina, Castella Don Antonio de Ulloa, Isla de Luzon, Isla de Cuba, General Lezo, Marquis de Duero, Cano Velasco, Isla de Mindanao, Sandoval, Jose Garcia, Leyte, and torpedo boat Barcelona.	*American Commander.*—Geo. Dewey.	*Spanish Commander.* — Admiral Montijo.
Results . . .	*American Casualties.* — Seven men slightly injured. No damage to ships.	*Spanish Casualties.*—All ships destroyed, 450 men killed and wounded.			
July 3, 1898	Before Santiago.	*American Vessels.*—Brooklyn, Texas, Oregon, Iowa, Gloucester.	*Spanish Vessels.* — Almirante Oquendo, Cristobal Colon, Vizcaya, Infanta Maria Teresa, and torpedo boats Pluton and Furor.	*American Commander.*—Winfield Schley.	*Spanish Commander.* — Admiral Cervera.
Results . . .	*American Casualties.*—One man killed. Brooklyn struck thirteen times, Texas once, but neither badly damaged.	*Spanish Casualties.*—All ships destroyed, more than 600 men killed and wounded and rest surrendered.			

The total number of vessels captured from Spain during the war of 1898 was 58.

COMPARATIVE RANK OF ARMY AND NAVY OFFICERS.

General ranks with Admiral.
Lieutenant-general ranks with Vice-admiral.
Major-general ranks with Rear-admiral.
Brigadier-general ranks with Commodore.
Colonel ranks with Captain.
Lieutenant-colonel ranks with Commander.
Major ranks with Lieutenant-commander.
Captain ranks with Lieutenant.
Lieutenant ranks with Ensign.

COMMANDING GENERALS OF THE UNITED STATES ARMY.

George Washington, 1775–83, General and Commander-in-chief of Army of the United Colonies.
Henry Knox, 1783–84, Major-general.
Josiah Harmer, 1784–91.
Arthur St. Clair, 1791-92, Major-general.
Anthony Wayne, 1792–96, Major-general.
James Wilkinson, 1796–98, Major-general.
[1] George Washington, 1798-99, Lieutenant-general.
Alexander Hamilton, 1799–1800, Major-general.
James Wilkinson, 1800–12, Brigadier-general.
Henry Dearborn, 1812–15, Major-general.
Jacob Brown, 1815–28, Major-general.
Alexander Macomb, 1828–41, Major-general.
Winfield Scott, 1841–61, Major-general and Lieutenant-general.
George B. McClellan, 1861–62, Major-general.
Henry W. Halleck, 1862-64, Major-general.
Ulysses S. Grant, 1864–69, General.
William T. Sherman, 1869–83, General.
Philip H. Sheridan, 1883–88, General.
John M. Schofield, 1888–95, Major-general and Lieutenant-general.
Nelson A. Miles, 1895-1903, Lieutenant-general.
Samuel B. M. Young, 1903-4, Lieutenant-general and Chief of Staff.
Adna R. Chaffee, 1904-, Lieutenant-general and Chief of Staff.

---

[1] Washington was commissioned Lieutenant-general, July 4, 1798, and by Act of March 3, 1799, the title of General was created for him, but he did not live to accept it.

REQUIREMENTS FOR ARMY ENLISTMENT.

AGE.—The requirement as to age is that the applicant shall be between the ages of eighteen and thirty-five years.

HABIT AND CHARACTER.—The applicant must be of good character, temperate in habit, able-bodied, free from disease, and able to speak and read English.

MINORS.—Minors between the ages of eighteen and twenty-one years cannot be enlisted except with the written consent of father or surviving parent or guardian.

HEIGHT.—Infantry and coast artillerists must be not less than five feet four inches in height, and weigh not less than 120 nor over 190 pounds. Cavalry and field artillerists must be not less than five feet four inches in height nor over five feet ten inches, and their weight shall not exceed 165 pounds. The term of enlistment is three years.

ENLISTMENT IN THE NAVY.

Enlistment in the Navy is for four years. Minors under eighteen cannot be enlisted without the consent of parent or guardian. Every person seeking to enlist must pass the examination, physical and otherwise, prescribed by the medical branch of the Naval service. The applicant must be an American citizen, be able to read and write English and willing to take the oath of allegiance.

The American Eagle—Our National Emblem.

Emblematic Significance.—The selection of a national emblem caused the makers of the American Republic about as much trouble as the selection of a title for Washington after he became President, although in the first instance the wives of the founders did not have as much to say as in the last. Originally, or as far back as what scholars call the age of mythology, the eagle was regarded as an emblem of sanctity; subsequently it was considered an emblem of wisdom; under the Etruscans, alive or in representation, it was adopted as a symbol of royal power, and for years it was the chief emblem of the Roman Republic.

Difficulty of Choice.—The selection of the eagle for the national emblem of the United States was made when both a national coinage and a national seal were planned. Probably it will never be known who was responsible for the choice. The species adopted was the *Haliaëtus leucocephalus* of Linnæus, popularly known as the "bald" or "white-headed" eagle, and the chief reasons seem to have been that in its flight this particular specimen presented an unusually majestic appearance, and was believed to be a bird of exceptional endurance and courage. Lest a popular conception of the qualities of the "bald" eagle be destroyed at one blow, it may be quietly stated that this eagle is not bald at all; that Audobon, the great ornithologist, could find no substantial reason for choosing it for a national emblem; and that Franklin lamented the selection "on account of its cowardice, tyranny, and general ill condition."

The Two-headed Eagle.—In making the eagle the national emblem for our Great Seal and early coinage instead of the more familiar turkey, our early financiers set aside the example of the Byzantine emperor who had the eagle represented with two heads to indicate the union under his sway of the empires of the East and of the West. An eagle with thirteen heads would have made a numismatic monstrosity, and a coin of 1905 showing an eagle with forty-five heads would appall all Christendom. Our coin makers decided to represent the constituents of the Union by stars, leaving the Byzantine conception to Austria-Hungary, Germany, and Russia.

The Coinage Eagle.—The first coin struck in the American colonies was in Boston in 1652, and was merely a planchet or round, thin piece of metal with the letters NE stamped near the border on one side and the figures XII in a square (12d. or 1 shilling) similarly stamped on the other. In 1776 a few pieces were coined experimentally in New Hampshire, the reverse of which exhibited an outline strongly suggestive of an eagle, erect but in repose. The Great Seal of the United States adopted in 1782 displayed the eagle bearing on its breast a shield of thirteen perpendicular red and white stripes, upholding a blue field, and this may be taken as the official introduction of the American bald eagle to the peoples of the world. The Massachusetts cent of 1787 bore on its reverse an eagle with less extended wings and displaying the word "cent" in the field of the shield.

The National Eagle.—In 1795, under Act of Congress of 1792, the Government began the coinage of pieces in gold, which, because of the representation of the eagle thereon, became known as eagles ($10), half-eagles ($5), and quarter-eagles ($2.50). The double-eagle ($20) was first coined in 1849, and is one of the handsomest productions numismatically ever put in circulation. The representation of the eagle has been given since to a number of minor coins, from the "trade" dollar of silver, issued for use in China in competition with Spanish and Mexican dollars, and there irreverently called the "Flying Hen," down to the one-cent piece which preceded the Indian-head cent of to-day.

The Monroe Doctrine.

On December 2, 1823, President James Monroe announced the following in his message to Congress, as the doctrine which has since borne his name:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting, as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

The Confederacy in War.

FROM OFFICIAL RECORDS.

[*Compiled by Marcus J. Wright, War Department.*]

STATES.	For the War.					For Twelve Months.						Remarks.
	Regiments.	Battalions.	Regiments.	Battalions.	Aggregate.	Regiments.	Battalions.	Regiments.	Battalions.	Aggregate.	Grand total.	
Alabama	17	4	15,000	1,475	16,475	9	5	8,145	1,825	9,970	26,445	One regiment of cavalry, two battalions of artillery, the balance infantry.
Arkansas	2	2	1,700	820	2,520	21	7	16,340	2,450	18,790	21,310	Three regiments cavalry, three battalions calvary, the balance infantry.
Indiana		1				4	1	3,300	200	3,500	3,500	All cavalry.
Florida		1		300	300	5	2	4,350	1,000	5,350	5,650	One regiment cavalry, and several artillery companies, the balance infantry.
Georgia	24	3	19,680	1,525	21,205	12	5	10,000	2,150	12,150	33,355	Enough companies of cavalry to make one regiment, several companies of artillery.
Kentucky	4	1	3,200	200	3,400	5	1	3,950	600	4,550	7,950	One regiment and one battalion cavalry, several companies artillery, balance infantry.
Louisiana	10	8	8,370	3,650	12,020	13	3	10,280	1,250	11,530	23,550	One regiment artillery, one battalion and several independent companies artillery, one regiment cavalry, balance infantry. One of the twelve months' regiments for local defence, number of men in each company enlisted for the war.
Mississippi	8	4	6,910	1,300	8,210	0	3	17,885	1,800	19,685	27,895	One regiment, two battalion, cavalry, several independent companies artillery, balance infantry.
Missouri		1			200	4	1	2,900	100	3,000	3,200	One regiment cavalry, two companies artillery, balance infantry.
Maryland	1	1	850	250	1,100		1			450	1,550	Two companies artillery, balance infantry.
North Carolina	11	1	8,250	200	8,450	29	3	24,200	1,500	25,700	34,150	Two regiments cavalry, two regiments artillery, balance infantry.
South Carolina	6	3	5,250	1,010	6,260	20	3	16,810	905	17,715	23,975	One regiment and two battalions artillery, two battalions cavalry, balance infantry. Two of the twelve months' regiments and two battalions for local defence, four companies in one regiment enlisted for the war.
Texas	11	2	8,975	610	9,585	8		6,635		6,635	16,220	Eleven regiments and two battalions cavalry, several artillery companies, rest infantry.
Tennessee	1	2	850	700	1,550	53	9	43,500	4,000	47,500	49,050	One regiment and eleven battalions cavalry, balance infantry; a number of artillery companies.
Virginia		3			1,500	9	9	50,500	3,450	53,950	55,450	Two regiments and three battalions artillery, many independent companies, nine regiments and one battalion cavalry, the balance infantry.
Virginia Militia											7,000	

RECAPITULATION.

	Regiments.	Battalions.	Total.
For the war	95	36	92,775
For twelve months	274	53	240,475
Total	369	89	333,250
Virginia militia			7,000
Grand total	369	89	340,250

The strength of a majority of the regiments is taken from returns forwarded to this office. Most of the unattached companies are included in the number of battalions. There may be from each state a few companies which have not been included in the above; where no returns have been received the strength has been ascertained by a careful average. The artillery organized into regiments is mostly heavy artillery. There are known to be a number of regiments from each state from which no returns have been received, estimated from twenty to twenty-five.

S. COOPER, Adjutant and Inspector-General.

Adjutant and Inspector-General's Office,
Richmond, March 1, 1862.

CONSOLIDATED REPORT OF THE ARMY OF THE CONFEDERATE STATES OF AMERICA, JAN., 1863.

(Found with Papers of Quartermaster-General, C. S. A.)

DEPARTMENT.	Commander.	Effective.	Aggregate.
Northern Virginia	General R. E. Lee	88,884	153,958
South Carolina, Georgia and Florida	General G. T. Beauregard	21,353	32,212
Department of the James and North Carolina	Major-General Smith	18,200	21,170
Department north of the James	Major-General Elzey	6,225	10,033
Department of Tennessee	General B. Bragg	51,030	88,484
Department of the Gulf	General S. B. Buckner	7,345	10,395
Southwestern Virginia	Major-General S. Jones	4,000	6,700
District of Louisiana	Major-General R. Taylor	6,882	7,233
Trans-Mississippi Department	General T. H. Holmes	50,000	50,000
Department of the Mississippi	General Pemberton	56,600	70,240
Wilmington District	General Whiting	6,000	7,160
Department of East Tennessee	General E. K. Smith	8,600	15,419
	Grand total and aggregate	325,119	473,004

CONSOLIDATED ABSTRACT FROM RETURNS OF THE CONFEDERATE FORCES ON OR ABOUT DECEMBER 31, 1861.

(Compiled from such Returns as are on File in the War Department.)

COMMAND.	PRESENT FOR DUTY.		Aggregate present.	Aggregate present and absent.	Date of return.
	Officers.	Men.			
Army of N. Va. (J. E. Johnston)	4,039	57,859	76,331	98,050	Dec. 31, 1861.
Dept. of Norfolk (Hugér)	668	10,878	13,451	15,143	Nov. 30, 1861.
Army of the Peninsula (Magruder)	775	12,447	16,825	20,683	Dec. 31, 1861.
Dept. N. C. (Gatlin)	611	9,679	12,107	13,900	Jan., 1862.
Dept. S. C., Ga. and Fla. (Lee) *a*	1,195	17,186	22,223	26,660	Dec. 28 and 31, 1861, and Jan. 9, 1862.
Dept. Ala. and W. Fla. (Bragg)	788	12,051	16,300	18,075	Dec. 2, 1861, Jan. 1, 1862.
Dept. No. 1 (Lovell)	324	6,636	8,621	8,691	Dec. 31, 1861.
Dept. No. 2 (A. S. Johnston) *b*	3,751	58,702	77,663	103,999	About Dec. 31, 1861.
Army of the N. W. (Loring)	605	8,933	11,699	17,760	Oct. 31, 1861 (latest on file).
Dept. of Texas (Hébért)	175	2,550	3,460	3,807	Dec., 1861, and Jan., 1862.
Army of New Mexico (Sibley) *c*	....	....	....	....	
Missouri State Guard (Price)	....	....	....	....	
Dept. of Indian Territory (Pike) *d*	....	....	....	....	
Total	12,931	196,921	258,680	326,768	

(*a*) The only returns on file for this department are from the first, second, third and fourth Military Districts and the District (or Department) of Middle and East Florida.

(*b*) No returns are on file for Floyd's and Bowen's brigade, and only the aggregate "present and absent" is reported for Carroll's brigade (4,015) and the volunteers in camp in Tennessee (6,000).

(*c*) Returns only for the District of Galveston and the troops on the Lower Rio Grande.

(*d*) No returns of an approximate date.

LIST OF VESSELS CAPTURED BY THE CONFEDERATE STATES STEAMER CHICKAMAUGA, UNDER COMMAND OF LIEUTENANT JOHN WILKINSON, CONFEDERATE STATES NAVY.

Date of Capture, 1864.	Names of Vessels.	Tonnage.	Disposition.
Oct. 30	Bark Mark L. Potter	389	Burnt.
31	Bark Emma L. Hall	492	Burnt.
31	Ship Shooting Star	947	Burnt.
31	Bark Albion Lincoln	237	Bonded.
Nov. 1	Schooner Godspeed	283	Scuttled.
1	Schooner Otter Rock	91	Scuttled.
2	Bark Speedwell	335	Bonded.

RECAPITULATION OF STATEMENT OF NUMBER OF TROOPS IN THE SERVICE OF THE CONFEDERATE STATES, ENLISTED FOR THE WAR, AND THE STATES FROM WHICH THEY VOLUNTEERED.

Alabama, 15 regts., 5 battalions, aggregate 182 companies.
Arkansas, 2 regts., 2 battalions, aggregate 32 companies.
Florida, 1 battalion, aggregate 6 companies.
Georgia, 23 regts., 2 legions, 3 battalions, aggregate 270 companies.
Kentucky, 3 regts., aggregate 30 companies.
Louisiana, 11 regts., 6 battalions, aggregate 145 companies.
Maryland, 1 regt., aggregate 10 companies.
Mississippi, 7 regts., 3 battalions, aggregate 90 companies.
North Carolina, 12 regts., aggregate 120 companies.
South Carolina, 6 regts., 2 battalions, aggregate 68 companies.
Tennessee, 4 regts., aggregate 40 companies.
Texas, 8 regts., aggregate 80 companies.
Virginia, 1 battalion, aggregate 4 companies.
Independent companies (artillery and others) 30.
Total 92 regiments, 2 legions, 23 battalions, aggregate 1,107 companies, aggregating in regiments 110 7-10.

S. Cooper,
Richmond, December 13, 1861. *Adjt. and Inspector-General.*

TROOPS CALLED FOR BY THE CONFEDERATE GOVERNMENT, FEBRUARY 2, 1862.

	Troops required.	Twelve months' men furnished in addition to those for the war.	Regiments called for.
*Alabama	15,331	....	12
Arkansas	4,614	4,950	2½
Georgia	15,715	10,610	12
Louisiana	9,734	10,630	5½
Mississippi	16,343	20,625	7
North Carolina	32,548	22,900	26
South Carolina	12,590	17,410	5
Tennessee	50,021	48,050	32
Texas	15,975	6,635	15
Virginia	64,342	54,950	47

* Alabama having furnished 9,970 men for twelve months, the number required is 15,331.

LIST OF NAMES OF CONSULAR, CONFIDENTIAL AND OTHER AGENTS OF THE CONFEDERATE STATES OF AMERICA.

Canada	Hon. Clement C. Clay, Jr.
Canada	Hon. Jacob Thompson.
Canada	Hon. James P. Halcombe.
Paris	Hon. Edwin De Leon.
Havanna	Hon. Charles J. Helm.
Nassau	L. Heylinger.
London	Geo. M. Saunders.
London	Hon. Beverly Tucker.
London	J. L. O'Sullivan.
Financial Agents at Paris, France	Emile Erlanger & Co.

REPORT OF VESSELS CAPTURED BY THE CONFEDERATE STATES STEAMER TALLAHASSEE, UNDER COMMAND OF COMMANDER JOHN TAYLOR WOOD, C. S. NAVY.

Date of capture, 1864.	Names of Vessels.	Tonnage.	Disposition.
Aug. 11	Schooner Sarah A. Bayce	281.80-95	Scuttled.
11	Pilot Boat James Funk	120.91-95	Burnt.
11	Brig Carrie Estelle	248.75-95	Burnt.
11	Bark Bay State	199.47-95	Burnt.
11	Brig A. Richards	274.30-95	Burnt.
11	Schooner Carrall	....	Bonded.
11	Pilot Boat William Bell	....	Burnt.
12	Schooner Atlantic	156.27-95	Burnt.
12	Ship Adriatic.	989.22-95	Burnt.
12	Bark Suliate	....	Bonded.
12	Schooner Spokane	126.03-95	Burnt.
12	Brig Billon	170.31-95	Scuttled.
12	Schooner Robert E. Packer	222.	Bonded.
13	Bark Glenaron	789.03-95	Scuttled.
13	Schooner Lammont Dupont	194.14-95	Burnt.
14	Ship James Littlefield	547.	Scuttled.
15	Schooner Mary A. Haines	61.	Scuttled.
15	Schooner Howard	147.69-95	Scuttled.
15	Schooner Floral Wreath	54.11-95	Scuttled.
15	Schooner Sarah B. Harris	....	Bonded.
15	Schooner Restless	49.45-95	Scuttled.
15	Schooner Etta Caroline	39.23-95	Scuttled.
15	Bark P. C. Alexander	283.	Burnt.
16	Schooner Leopard	73.92-95	Burnt.
16	Schooner Pearl	41.66-95	Burnt.
16	Schooner Sarah Louisa	81.03-95	Burnt.
16	Schooner Magnolia	35.23-95	Burnt.
17	Schooner North America	83.47-95	Scuttled.
17	Brig Neva	286.	Bonded.
17	Schooner Achon	123.	Burnt.
17	Schooner Diadem	....	Released.
17	Schooner D. Ellis	....	Released.
20	Brig Roan	127.47-95	Burnt.

Recapitulation.

Burnt	16
Scuttled	10
Bonded	5
Released	2
Total	33

TABLE SHOWING THE PRICES OF CERTAIN ARTICLES IN VIRGINIA AS FIXED BY THE GOVERNMENT BOARD OF ASSESSMENT, MARCH 27, 1865.

Wheat, per bus	$25 00
Flour, per bbl	125 00
Corn, per bus	20 00
Cornmeal, per bus	21 00
Bacon, per lb. (hog round)	4 00
Pork, per lb. (hog round)	2 75
Lard, per lb	4 00
Horses and Mules, first-class	1200 00
Wool, per lb	10 00
Beans and peas, per bus	10 00
Irish potatoes, per bus	20 00
Sweet potatoes, per bus	20 00
Onions, per bus	50 00
Dried peaches, per bus	20 00
Hay baled, per 100 lbs	7 00
Salt, per bushel of 50 lbs.	10 00
Soap per lb	3 00
Candles, tallow, per lb	7 00
Vinegar, per gal	5 00
Whisky, per gal	25 00
Sugar, brown, per lb.	5 00
Molasses, per gal.	15 00
Rice, per lb.	1 00
Coffee, per lb.	10 00
Tea, per lb.	15 00
Army woolen cloth, per yard	15 00
Cotton shirtings, per yard	2 50
Army shoes, per pair	25 00
Wool socks, per pair	5 00

PAY OF OFFICERS OF THE CONFEDERATE ARMY AS PER ACT OF CONGRESS, MARCH 6, 1861.

Brigadier-General, $301 per month.
A. D. C. to Brigadier-General, in addition to his pay as Lieutenant, $35 per month.
Corps of Engineers, pay per month:
    Colonel, $210.
    Major, $162.
Captain, $140. Lieutenants serving with company of sappers and miners shall receive the pay of cavalry officers of same grade.
Corps of artillery, per month:
    Colonel, $210.
    Lieut.-Col., $185.
    Major, $150 (on ordnance duty $162).
    Captain, $130.
    First Lieutenant, $90.
    Second Lieutenant, $80. Adjutant, $10 additional.
Corps of infantry, monthly:
    Colonel, $195.
    Lieut.-Col., $170.
    Major, $150.
    Captain, $130.
    First Lieutenant, $90.
    Second Lieutenant, $80. Adjutant, $10 in addition.
Corps of cavalry, monthly:
    Colonel, $210.
    Lieut.-Col., $185.
    Major, $162.
    Captain, $140.
    First Lieutenant, $100.
    Second Lieutenant, $90. Adjutant, $10 per month additional.
Officers of the General Staff except those of the Medical Department shall be the same as that of officers of cavalry of the same grade.

The Surgeon-General, annual pay, $3,000 with fuel and quarters.

Surgeon of ten years' service, per month	$200
Surgeon less than ten years' service, per month	$162
Asst. Surgeon of ten years' service, per month	$150
Asst. Surgeon of five years' service, per month	$130
Asst. Surgeon less than five years' service, per month	$110

Enlisted men of the army:

Sergeant or master workman eng. corps	$34	monthly.
Corporal or overseer	$20	"
Private of first class	$17	"
Private of second class and musicians	$13	"
Sergeant-Major of cavalry	$21	"
First Sergeants	$20	"
Sergeants	$17	"
Corporals, farriers and blacksmiths	$13	"
Musicians	$13	"
Privates	$12	"
Sergeant-Major of artillery and infantry	$21	"
First Sergeants	$20	"
Sergeants	$17	"
Corporals and artificers	$13	"
Musicians	$12	"
Privates	$12	"

LIST OF VESSELS CAPTURED BY CONFEDERATE STATES STEAMER OLUSTEE (TALLAHASSEE), LIEUTENANT-COMMANDING W. H. WARD.

Names of Vessels.	Tonnage.	Disposition.
Bark Empress Theresa	312	Burnt.
Schooner A. J. Bird	182	Scuttled.
Schooner E. F. Lewis	119	Scuttled.
Schooner Napor	312	Scuttled.
Brig L. D. Wagner	390	Scuttled.
Ship Arcole	663	Scuttled.

STATEMENT OF REQUISITIONS OF THE CONFEDERATE DEPARTMENT OF WAR ON THE TREASURY DEPARTMENT FOR THE YEARS NAMED UP TO FEBRUARY 18, 1865.

1861	$ 59,516,129.75
1862	398,259,436.51
1863	512,278,188.54
1864	670,663,396.89
1865	97,028,970.14

John C. Breckenridge, *Secretary of War.*

AN ESTIMATE OF FUNDS REQUIRED FOR THE SUBSISTENCE OF 475,000 MEN FROM JANUARY 1 TO JUNE 30, 1863 (ONE HUNDRED AND EIGHTY-ONE DAYS), MAKING 85,975,000 RATIONS.

89,975,000 rations at $1.12 per ration	$96,292,000
1,000,000 gallons molasses at $1.00 per gallon	1,000,000
1,000,000 gallons whisky at $2.50 per gallon	2,500,000
Purchase of weights, scales and measures	200,000
Provisions for Quartermaster's employes and laborers under charge of Engineer and Nitre Bureau	11,666,660
	$111,658,660
Add 10 per cent for wastage	11,165,866
	$122,824,526
Deduct amount already appropriated	48,656,500
Total now required	$74,168,026

L. B. Northop, Commissary-General of Subsistence.

UNIFORM CLOTHING ALLOWED PRIVATE SOLDIERS IN THE CONFEDERATE ARMY, BY ACT OF THE CONFEDERATE CONGRESS, OCTOBER 8, 1862.

Clothing.	For three years.			Price of each Article.
	1st	2d	3d	
Cap complete	2	1	1	$2.00
Cover	1	1	1	38
Jacket	2	1	1	12.00
Trousers	3	2	2	9.00
Shirt	3	3	3	3.00
Drawers	3	2	2	3.00
Shoes, pairs	4	4	4	6.00
Socks, pairs	4	4	4	1.00
Leather stock	1	....	....	25
Great coat	1	....	....	25.00
Stable frock for mounted men	1	....	....	2.00
Fatigue overalls for Eng. and Ord.	1	1	1	3.00
Blanket	1	....	1	7.50

By Gen. O. 146, Adjt. and Inspector-Gen.'s Office, Richmond, Nov. 9, 1863, cost of certain articles was increased, viz:

Jacket, from	$12 to $14	
Trousers, from	9 to 12	
Shoes, pair, from	$6 to 10	
Blanket, from	7.50 to 10	

TABLE SHOWING THE NUMBER OF WHITE MALES IN CERTAIN SOUTHERN STATES BETWEEN THE AGES OF FIFTEEN AND FIFTY, FROM THE CENSUS OF 1860.

States.	Whites.	White males between 15 and 50 years of age.
Virginia	1,097,873	
North Carolina	679,965	
South Carolina	308,166	
Georgia	615,336	
Florida	81,885	
Alabama	520,444	
Mississippi	407,551	86,400
	3,711,220	86,400
Estimated white males in the forenamed States between the ages of 15 and 50 in 1864	4,000,000	93,400

SUMMARY OF TROOPS FURNISHED TO THE UNITED STATES ARMY, 1861–65, FROM THE SOUTHERN STATES NAMED.

Maryland	46,638	North Carolina	3,156
West Virginia	32,068	Alabama	2,576
Missouri	109,111	Florida	1,290
Kentucky	75,760	Louisiana	5,224
Tennessee	31,092	Mississippi	545
Arkansas	8,289	Texas	1,965

Total colored troops enlisted during the war was 186,097, of which 93,441 were organized in the Southern States.

CONSOLIDATED ABSTRACT FROM RETURNS OF THE CONFEDERATE FORCES ON OR ABOUT JUNE 2, 1862.

[Compiled from such Returns as are on File in the War Department.]

Command.	Present for Duty.		Aggregate present.	Aggregate present and absent.	Date of Return.
	Officers.	Men.			
Dept. A. N. Va. (Lee) *a*	3,586	53,800	78,891	119,242	July 20, 1862.
Dept. of Henrico (Winder)	....	....	....	....	No return.
Dept. of N. C. (Holmes)	1,012	16,493	21,196	26,826	July 15, 1862.
Dept. of S. C. and Ga. (Pemberton)	1,436	21,939	29,783	35,656	June 30, 1862.
Dept. of E. Tenn. (Smith) *b*	946	12,512	16,303	24,895	June 30, 1862.
Dept. of S. W. Va. (Loring)	....	....	....	....	No return.
Dept. No. 2 (Bragg)	3,493	41,667	61,561	96,549	July 1, 1862.
Dept. of Mid. and E. Fla. (Finegan)	....	....	....	....	
District of the Gulf (Forney)	448	6,330	9,127	10,618	July 1, 1862.
Trans-Miss. Dept. *c*	221	3,674	4,599	10,873	May 31, and June 30, 1862.
Army of New Mexico (Sibley)	....	....	....	....	No return.
Total	11,248	158,695	224,146	328,049	

(*a*) Exclusive of the troops from the Department of North Carolina serving in Virginia, and accounted for in the return of the Department of North Carolina (Holmes) dated July 15, 1862; also the Divisions of Jackson and Ewell, the forces in the Shenandoah Valley and Northwestern Virginia, for all of which there are no returns of an approximate date.

(*b*) Allston's cavalry brigade not reported.

(*c*) South of Red River commanded by Brig.-Gen. P. O. Hébért and north of that river by Maj.-Gen. Thos. C. Hindman. The only returns on file of date approximating June 30, 1862, are for the District of the Lower Rio Grande (Suckett) June 30, and the Department of Indian Territory (Pike) May 31.

LIST OF KILLED, WOUNDED AND PRISONERS OF THE CONFEDERATE ARMY.

By Dr. Joseph Jones, Surgeon in Confederate States Army, and Surgeon-General of the United Confederate Veterans.

Year.	Killed.	Wounded.	Prisoners.
1861	1,315	4,054	2,772
1862	18,582	68,659	48,300
1863	11,876	51,313	71,211
1864 1865	22,200	70,000	80,000
Total	53,973	194,026	202,283

LIST OF ARMORIES, ARSENALS, DEPOTS, ETC., OF THE CONFEDERATE GOVERNMENT, MARCH 12, 1863.

Fayetteville Arsenal and Armory, Fayetteville, N. C.
Richmond Armory, Richmond, Va.
Richmond Arsenal, Richmond, Va.
Charleston Arsenal, Charleston, S. C.
Augusta Arsenal, Augusta, Ga.
Confederate Powder Mills, Augusta, Ga.
Savannah Depot, Savannah, Ga.
Montgomery Depot, Montgomery, Ala.
Mount Vernon Arsenal, Mount Vernon, Ala.
Baton Rouge Arsenal, Baton Rouge, La.
Texas Arsenal, San Antonio, Texas.
Little Rock Arsenal, Little Rock, Ark.
Memphis Depot, Memphis, Tenn.
Nashville Arsenal, Nashville, Tenn.
New Orleans Depot, New Orleans, La.

NAMES OF INDIAN TRIBES WITH WHICH THE CONGRESS OF THE CONFEDERATE STATES RATIFIED TREATIES ON FRIDAY AND SATURDAY, THE 20TH AND 21ST SEPTEMBER, 1861.

Choctaw and Chickasaw Indians.
Creek Indians.
Seminole Indians.
Cherokee Indians.
Noconi Indians.
Bands of Comanche Indians.
Osage Indians.
Seneca Indians.
Shawnee Indians.
Quapaw Indians.
Reserve Indians.

ESTIMATES OF CONFEDERATE LOSSES AT FORTS HENRY AND DONELSON REPORTED BY LIEUTENANT-COLONEL MILTON A. HAYNES.

AT FORT DONELSON.

38-pounder guns (two ship carronades)	10
10-pounder columbiad	1
32-pounder rifle gun	1
8-inch bronze howitzer	1
9-pounder iron nondescript guns	2
Five light batteries (average over 6 guns)	35
Total	50

AT FORT HENRY.

32-pounder guns	10
10-inch columbiad	1
32-pounder rifle gun (burst in action)	1
Five pieces (two howitzers and 1 rifle 3-pounder)	6
Total	18

STATEMENT OF SMALL ARMS ON HAND AT THE DIFFERENT ARSENALS WHEN TAKEN POSSESSION OF BY THE SEVERAL STATES.

Names of Arsenals.	Rifle muskets, U. S. model.	Muskets, rifled, caliber .69.	Muskets, percussion, new and altered.	Muskets, flint.	Harper's Ferry rifles.	Colt rifles.	Hall rifles.	Carbines, various patterns.	Pistols, percussion.	Colt pistols.	Total.
Baton Rouge	1,099	972	29,222	8,283	2,158	73	2,287	735	2,075	468	47,372
Mount Vernon	20		17,370		2,032				33		19,455
Charleston	646		18,723		2,800				300		22,469
Augusta			20,000		2,000		714				22,714
Little Rock (reported)											10,000
Fayetteville (reported)											37,000
Total	1,765	972	85,315	8,283	8,990	73	3,001	735	2,408	468	159,010

May 7, 1861.

J. GORGAS, Major and Chief of Ordnance.

STATEMENT OF ISSUES OF CLOTHING TO THE CONFEDERATE ARMIES IN THE FIELD, JANUARY 27, 1865, FOR SIX MONTHS PRIOR TO THAT DATE.

Aggregate amount third and fourth quarters, 1864, and to Jan. 21, 1865.	Jackets.	Pants.	Shoes.	Blankets.	Hats and caps.	Flannel shirts.	Cotton shirts.	Drawers.	Socks.	Overcoats.
Gen. Lee's command in Virginia	104,199	140,578	167,862	74,851	27,011	21,063	157,727	170,139	146,136	4,861
Aggregate amount third and fourth quarters, 1864.										
Army of Southwest Va.	3,340	2,500	6,856	4,924	3,230	1,440	13,694	15,475	12,353	1,000
Dept. S. C., Ga. and Fla., Gen. Hardee	19,751	21,022	26,376	12,429	500	1,440	19,264	20,571	26,719	594
Army of Tennessee	45,412	102,864	a102,558	27,900	45,853		61,860	108,937	55,500	
Dept. Ala., Miss. and E. La.	21,780	37,661	34,342	4,667	27,292		10,095	3,831	15,458	
Dept. of N. C.	21,301	37,774	9,263	6,696	12,751		23,354	22,519	15,059	200

(*a*) Also 7,000 captured by General Forrest.

LIST OF STEAMERS WHICH HAVE ARRIVED SINCE APRIL 27, 1862, WITH THE DATE AND PLACE OF ARRIVAL, AND STATEMENT OF ARMS ON BOARD OF EACH ONE.

Date.	Names.	Place of Arrival.	No. of Stands of Arms.
April 27	Cecile	Charleston	3,000
April 27	Nashville	Wilmington	6,420
May 24	Kate and Cecile	Charleston	5,000
May 25	Minho	Charleston	3,010
June 24	Memphis	Charleston	11,000
June 25	Kate	Savannah	2,000
June 28	Modern Greece	Wilmington	7,000
July 3	Herald	Charleston	1,280
July 6	Nashville	Savannah	2,600
July 25	Hero	Charleston	140
Aug. 3	Leopard	Charleston	4,000
	Cuba		500
	Ann		500
Total			48,510

August 16, 1862.

J. GORGAS, Colonel.

STATEMENT OF ARMS RECEIVED UP TO JULY 1, 1863.

Good rifled arms on hand at beginning of war, including those in hands of volunteer companies	25,000
New arms manufactured in the Confederacy and in private establishments	40,000
Captured from Federal Army and found on battlefields.	150,000
Imported from Jan. 1, 1862, to July 1, 1863	185,000
Total	400,000

STATEMENT OF GENERAL JOSIAH GORGAS OF RIFLES AND MUSKETS IN POSSESSION OF CONFEDERATE GOVERNMENT AT THE BEGINNING OF THE WAR AND WHERE DEPOSITED.

Small Arms and where Deposited.	Rifles.	Muskets.
Richmond (about)	4,000	
Fayetteville Arsenal, N. C.	2,000	25,000
Charleston Arsenal, S. C.	2,000	20,000
Augusta Arsenal, Ga.	3,000	28,000
Mount Vernon Arsenal, Ala.	2,000	2,000
Baton Rouge Arsenal, La.	2,000	27,000
Total	15,000	120,000

APPROPRIATIONS MADE BY THE CONFEDERATE CONGRESS FROM APRIL 1 TO NOVEMBER 30, 1862, FOR THE ARMY.

Quartermaster's Department	$155,000,000
Purchase of subsistence stores and commissary property	29,000,000
For ordnance service	11,000,000
For engineer service	1,800,000
For surgical and medical supplies	2,400,000
Contingent expenses of the Adjutant and Inspector-General's Department	10,000
Incidental and contingent expenses of the army and of the Department of War	200,000
For floating defence of the Western waters	500,000

GEOGRAPHY

Political and Physical

WITH COPIOUS MAPS

OUTLINES OF

TOPOGRAPHY, FOREST
MOUNTAIN, CLIMATE
SOIL, ETC.

Waters of the United States

LAKE AND RIVER SYSTEMS

The Whole Country *and* Its Parts

AS NATURE AND MAN
HAVE MADE THEM ∴

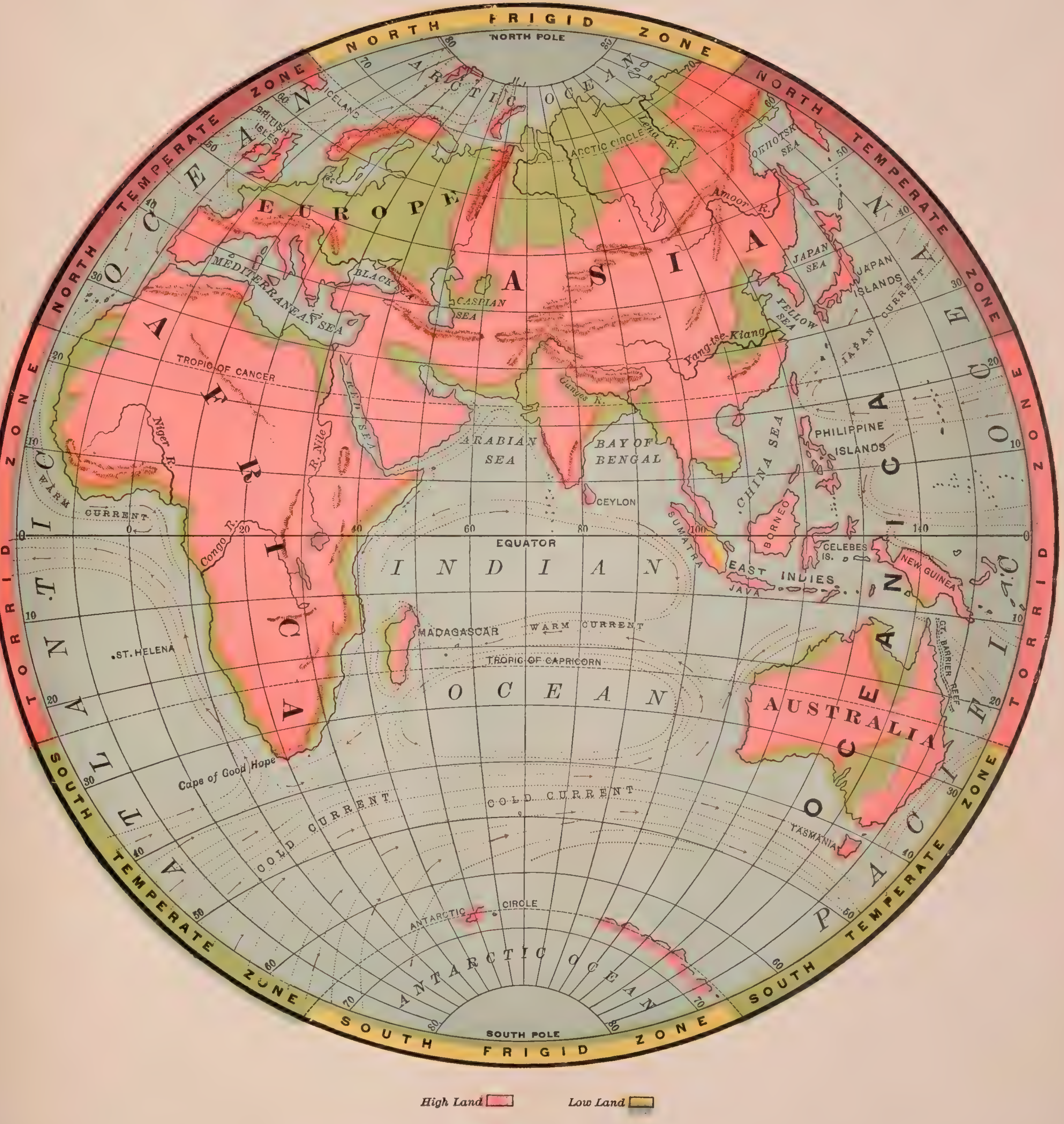
SHOWING POLITICAL DIVISIONS

Topography   Mountain Systems   Climates and Soils
Waters and Forests   Products of Soil, Mine and Factory
Educational Facilities   Principal Cities
How Governed   General History

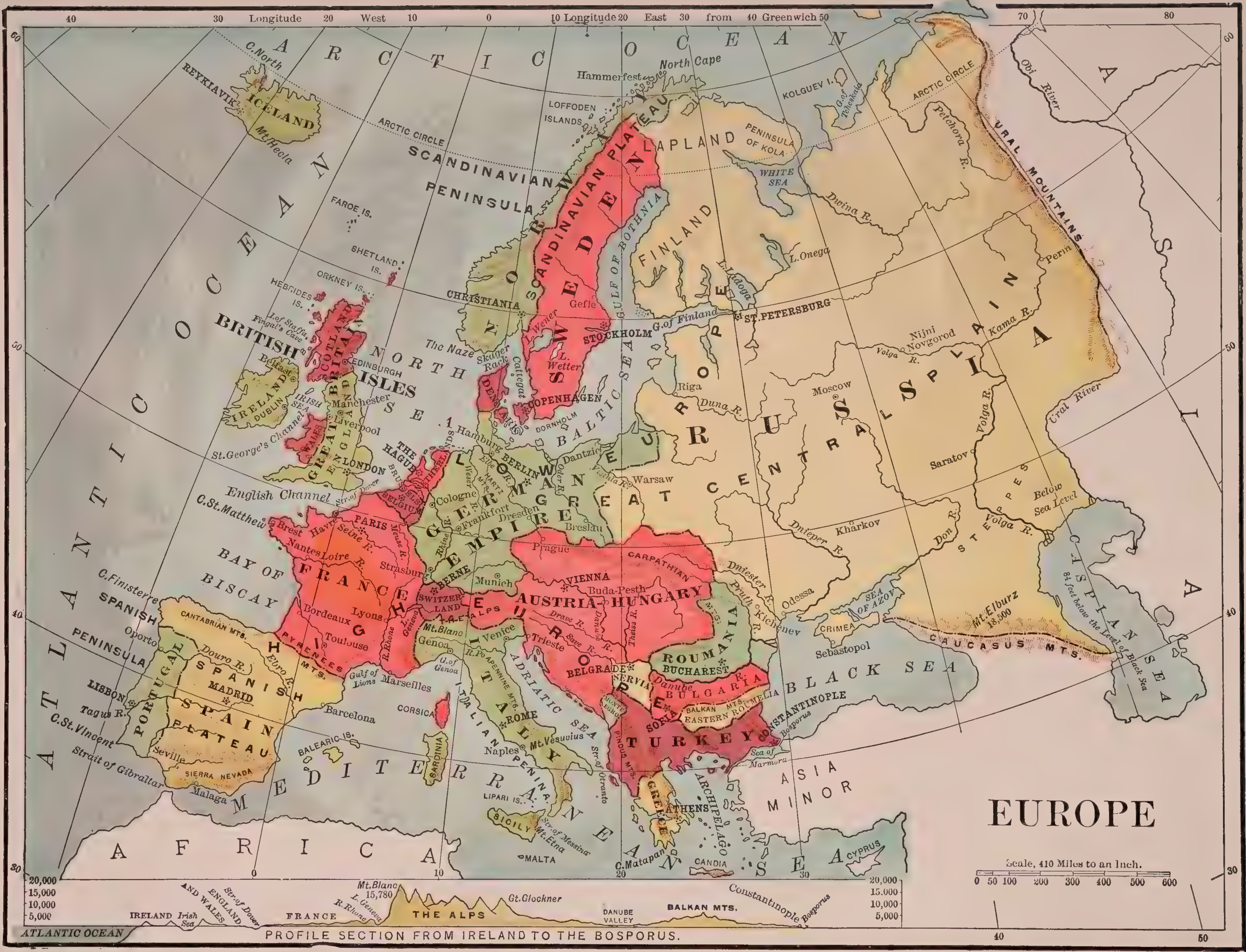
WATERS *of the* UNITED STATES

The Great Lakes
Areas, Depths, General Features
Smaller Lakes, Location, Size, etc.
All Important Rivers
Location, Rise, Length, Exit

A graphic mapping of those natural and civic characteristics which make our Country so exceptional among the Nations.



EASTERN HEMISPHERE

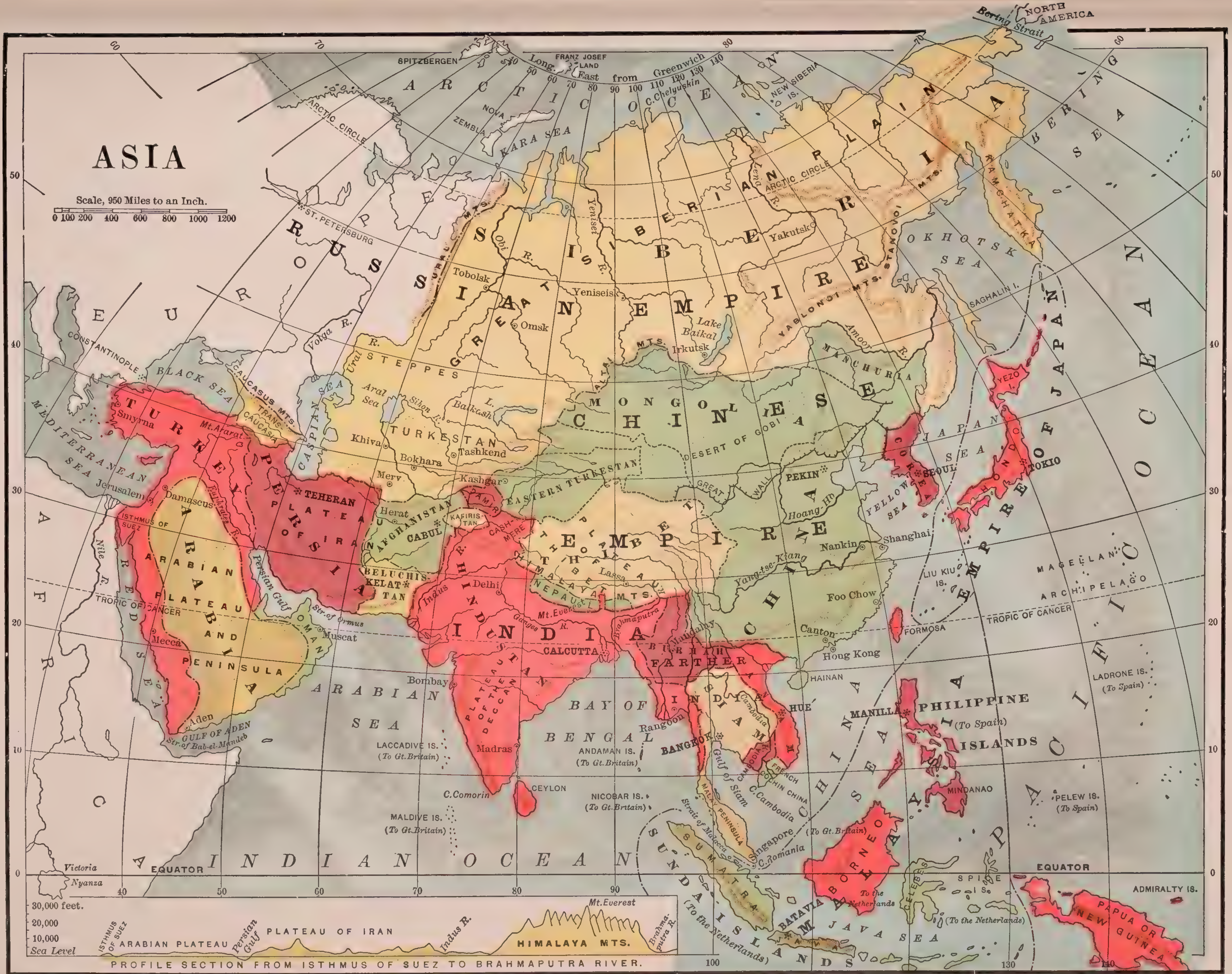


EUROPE

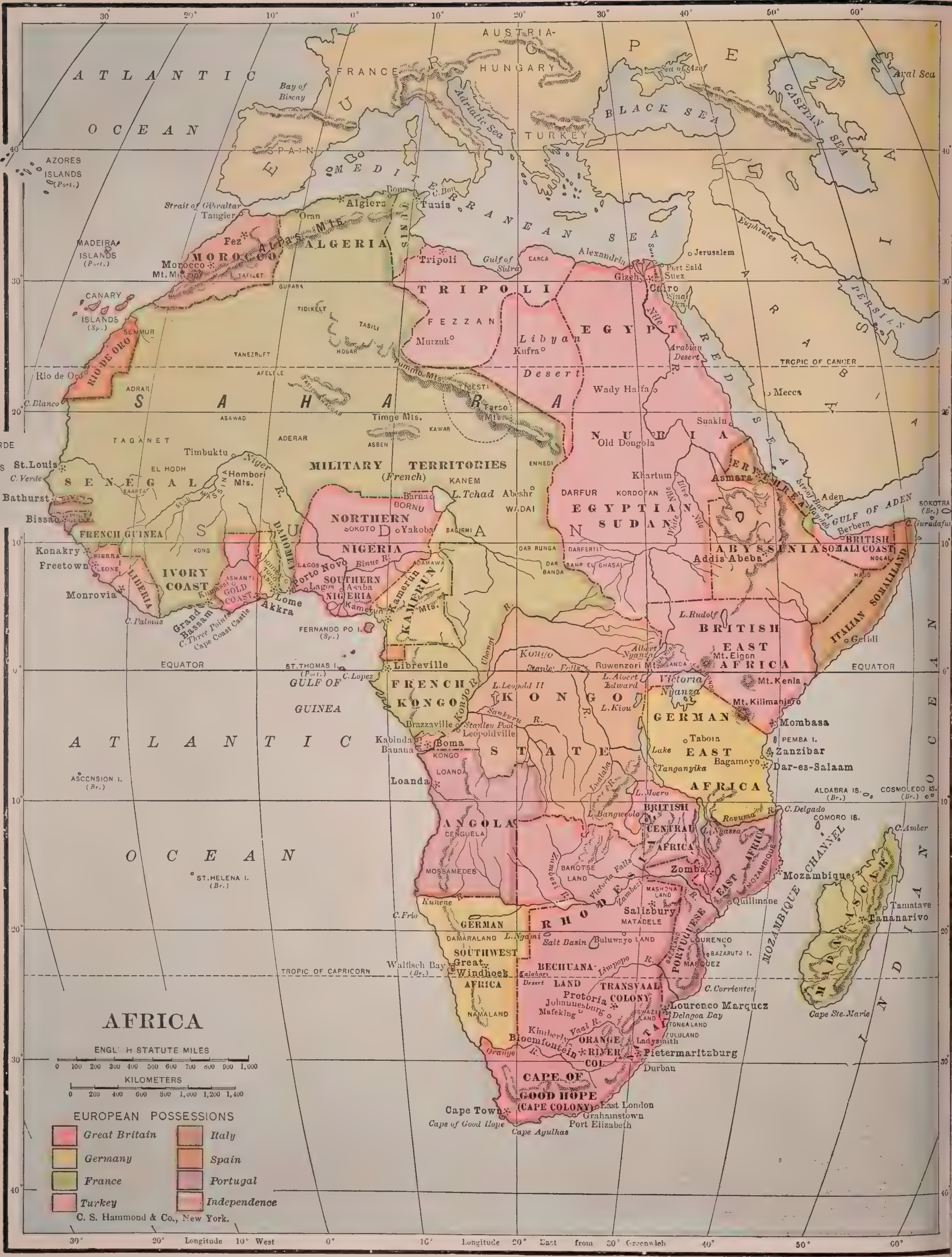
Scale, 410 Miles to an Inch.

PROFILE SECTION FROM IRELAND TO THE BOSPORUS.

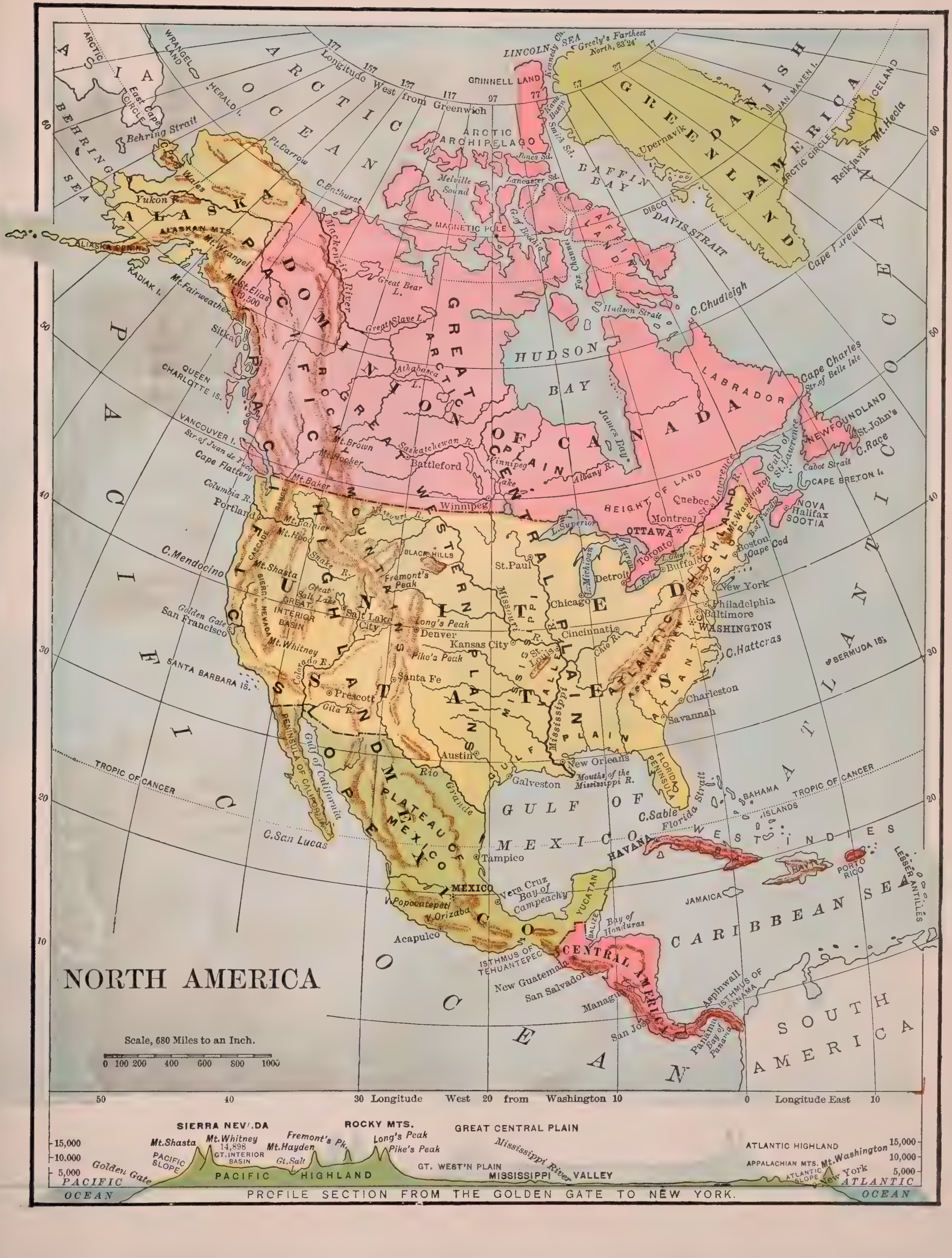
ASIA



W. H. Gamble, Del.
Struthers & Co., Engr's, N.Y.


AFRICA

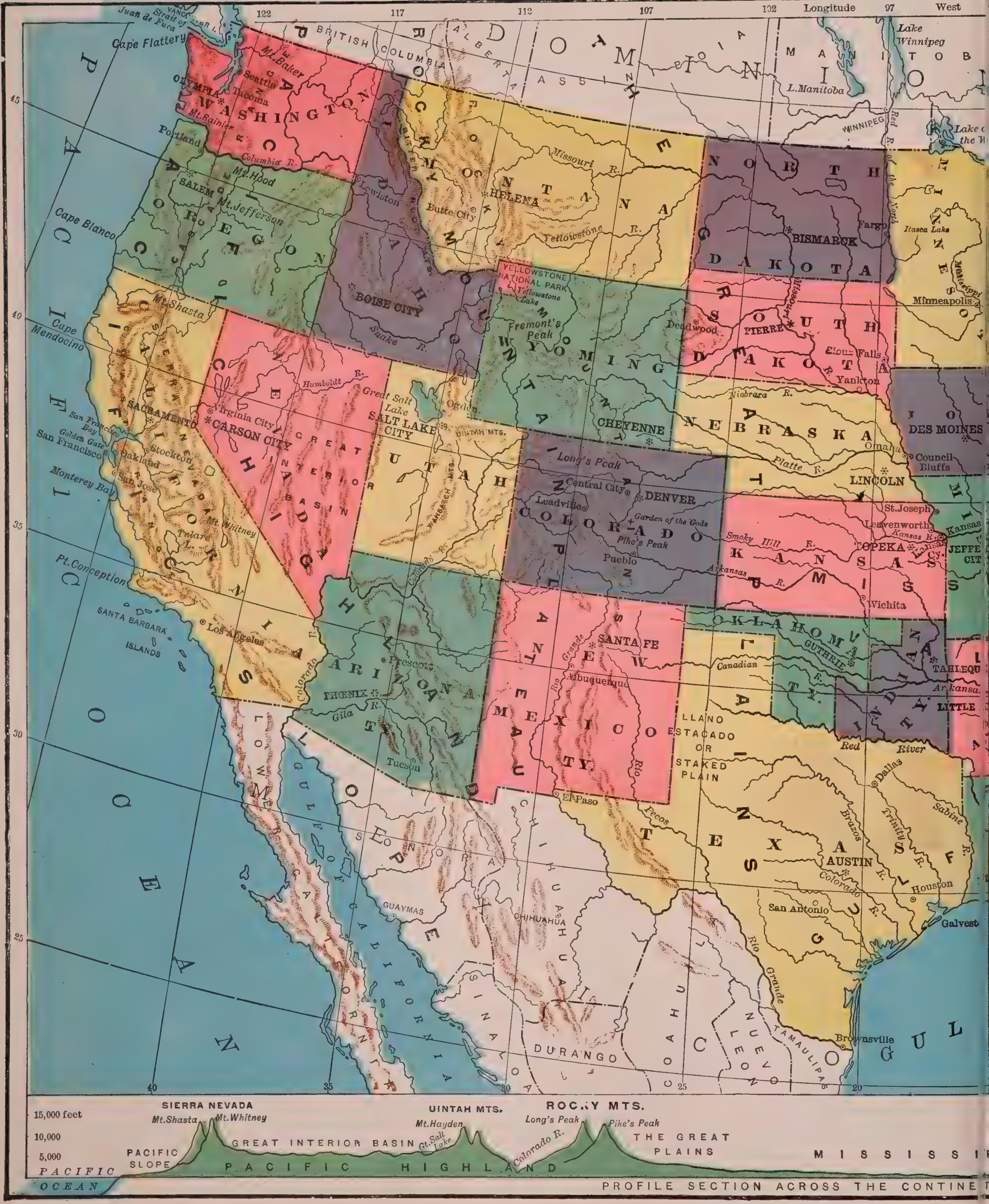
C. S. Hammond & Co., New York.

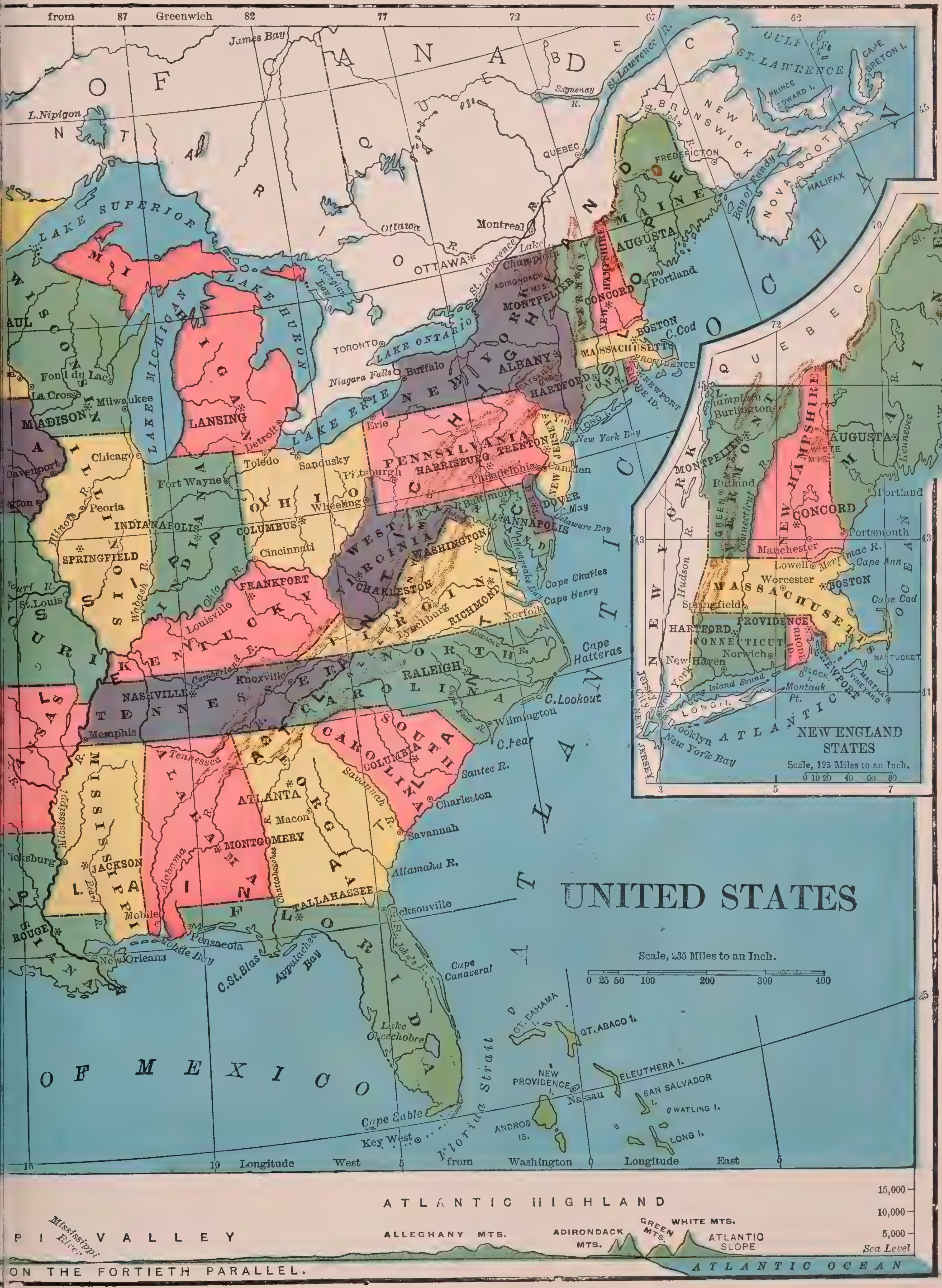


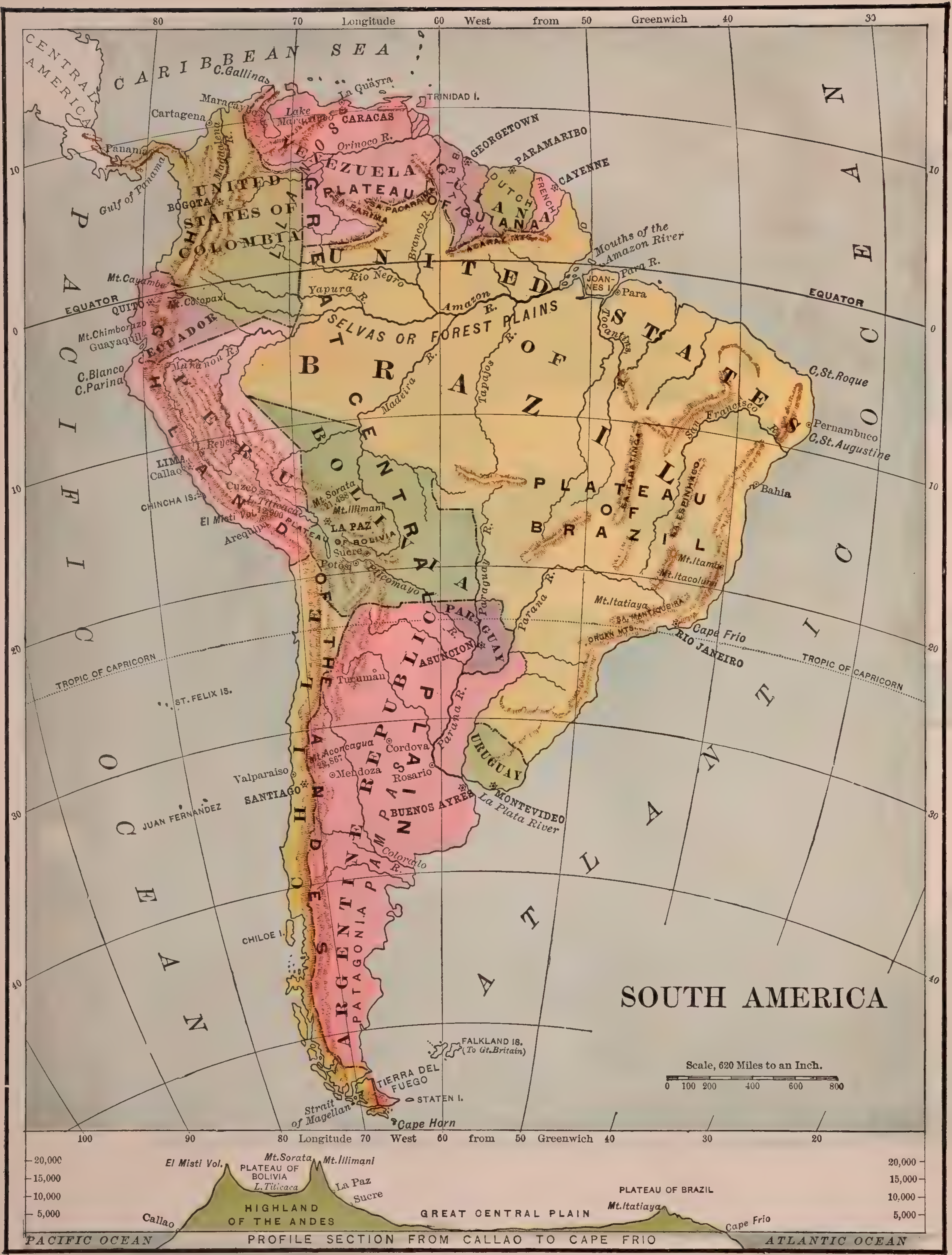
NORTH AMERICA

Scale, 680 Miles to an Inch.

PROFILE SECTION FROM THE GOLDEN GATE TO NEW YORK.


Longitude
West
122
117
112
107
102
97
45
40
35
30
25
PACIFIC OCEAN
GULF OF CALIFORNIA
BRITISH COLUMBIA
ALBERTA
ASSINIBOIA
DOMINION
MANITOBA
Lake Winnipeg
L. Manitoba
WINNIPEG
Juan de Fuca Strait of
Cape Flattery
WASHINGTON
OLYMPIA
Seattle
Tacoma
Mt. Baker
Mt. Rainier
Columbia R.
Portland
OREGON
SALEM
Mt. Hood
Mt. Jefferson
Cape Blanco
IDAHO
Lewiston
BOISE CITY
Snake R.
MONTANA
HELENA
Butte City
Missouri R.
Yellowstone R.
NORTH DAKOTA
BISMARCK
Fargo
SOUTH DAKOTA
PIERRE
Deadwood
Sioux Falls
Yankton
MINNESOTA
Itasca Lake
Minneapolis
WYOMING
YELLOWSTONE NATIONAL PARK
Yellowstone Lake
Fremont's Peak
CHEYENNE
ROCKY MOUNTAINS
CALIFORNIA
Mt. Shasta
Cape Mendocino
SIERRA NEVADA
SACRAMENTO
San Francisco Bay
Golden Gate
San Francisco
Oakland
Stockton
San Jose
Monterey Bay
Mt. Whitney
Tulare L.
Pt. Conception
SANTA BARBARA ISLANDS
Los Angeles
NEVADA
Humboldt R.
Virginia City
CARSON CITY
GREAT INTERIOR BASIN
UTAH
Great Salt Lake
Ogden
SALT LAKE CITY
UINTAH MTS.
WAHSATCH MTS.
COLORADO
Long's Peak
Central City
DENVER
Leadville
Garden of the Gods
Pike's Peak
Pueblo
NEBRASKA
Niobrara R.
Platte R.
LINCOLN
Omaha
IOWA
DES MOINES
Council Bluffs
KANSAS
Smoky Hill R.
Arkansas R.
TOPEKA
St. Joseph
Leavenworth
Kansas R.
Kansas Cy.
Wichita
MISSOURI
JEFFERSON CITY
ARIZONA
Prescott
PHŒNIX
Gila R.
Tucson
Colorado R.
NEW MEXICO
SANTA FE
Albuquerque
Rio Grande
El Paso
OKLAHOMA
GUTHRIE
INDIAN TY.
TAHLEQUAH
Canadian R.
Arkansas
LITTLE ROCK
Red River
LLANO ESTACADO OR STAKED PLAIN
TEXAS
AUSTIN
Dallas
Brazos R.
Trinity R.
Sabine R.
Colorado R.
Houston
Galveston
San Antonio
Pecos R.
Brownsville
GULF
LOWER CALIFORNIA
SONORA
GUAYMAS
CHIHUAHUA
SINALOA
DURANGO
COAHUILA
NUEVO LEON
TAMAULIPAS
MEXICO
15,000 feet
10,000
5,000
PACIFIC OCEAN
PACIFIC SLOPE
SIERRA NEVADA
Mt. Shasta
Mt. Whitney
GREAT INTERIOR BASIN
Gt. Salt Lake
UINTAH MTS.
Mt. Hayden
ROCKY MTS.
Long's Peak
Pike's Peak
Colorado R.
PACIFIC HIGHLAND
THE GREAT PLAINS
MISSISSI
PROFILE SECTION ACROSS THE CONTINE


UNITED STATES
Scale, 135 Miles to an Inch.
0 25 50 100 200 300 400
from 87 Greenwich 82 77 73 67 62
Longitude West from Washington 0 Longitude East 5
DOMINION OF CANADA
ONTARIO
QUEBEC
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD I.
CAPE BRETON I.
GULF OF ST. LAWRENCE
Bay of Fundy
James Bay
L. Nipigon
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
Georgian Bay
LAKE ONTARIO
LAKE ERIE
Lake Champlain
Ottawa R.
St. Lawrence R.
Saguenay R.
St. John R.
OTTAWA
Montreal
QUEBEC
TORONTO
FREDERICTON
HALIFAX
Niagara Falls
ATLANTIC OCEAN
GULF OF MEXICO
WISCONSIN
MADISON
Fond du Lac
La Crosse
Milwaukee
MICHIGAN
LANSING
Detroit
ILLINOIS
SPRINGFIELD
Chicago
Peoria
Illinois R.
INDIANA
INDIANAPOLIS
Fort Wayne
Wabash R.
OHIO
COLUMBUS
Toledo
Sandusky
Cincinnati
Ohio R.
IOWA
Davenport
MISSOURI
St. Louis
KENTUCKY
FRANKFORT
Louisville
TENNESSEE
NASHVILLE
Knoxville
Memphis
Cumberland R.
Tennessee R.
ARKANSAS
MISSISSIPPI
JACKSON
Vicksburg
Mississippi R.
Pearl R.
LOUISIANA
BATON ROUGE
New Orleans
ALABAMA
MONTGOMERY
Mobile
Mobile Bay
Alabama R.
GEORGIA
ATLANTA
Macon
Savannah
Savannah R.
Chattahoochee R.
Altamaha R.
FLORIDA
TALLAHASSEE
Pensacola
Jacksonville
St. John's R.
Lake Okeechobee
Appalachee Bay
C. St. Blas
Cape Canaveral
Cape Sable
Key West
Florida Strait
SOUTH CAROLINA
COLUMBIA
Charleston
Santee R.
C. Fear
NORTH CAROLINA
RALEIGH
Wilmington
Cape Fear R.
Roanoke R.
C. Lookout
Cape Hatteras
VIRGINIA
RICHMOND
Lynchburg
Norfolk
Cape Charles
Cape Henry
Chesapeake Bay
WEST VIRGINIA
CHARLESTON
Wheeling
WASHINGTON
MARYLAND
ANNAPOLIS
Baltimore
Potomac R.
DELAWARE
DOVER
Delaware Bay
C. May
PENNSYLVANIA
HARRISBURG
Pittsburgh
Philadelphia
Erie
NEW JERSEY
TRENTON
Camden
NEW YORK
ALBANY
Buffalo
New York
New York Bay
LONG I.
ADIRONDACK MTS.
CATSKILL MTS.
VERMONT
MONTPELIER
NEW HAMPSHIRE
CONCORD
MAINE
AUGUSTA
Portland
MASSACHUSETTS
BOSTON
C. Cod
CONN.
HARTFORD
RHODE ID.
PROVIDENCE
NEWPORT
GT. BAHAMA
GT. ABACO I.
NEW PROVIDENCE I.
Nassau
ELEUTHERA I.
SAN SALVADOR I.
WATLING I.
ANDROS IS.
LONG I.
NEW ENGLAND STATES
Scale, 125 Miles to an Inch.
0 10 20 40 60 80
QUEBEC
NEW YORK
NEW JERSEY
ATLANTIC OCEAN
L. Champlain
Burlington
MONTPELIER
Rutland
GREEN MTS.
Connecticut R.
Hudson R.
VERMONT
NEW HAMPSHIRE
WHITE MTS.
CONCORD
Manchester
Portsmouth
MAINE
AUGUSTA
Mt. Katahdin
Bangor
Portland
Kennebec R.
Penobscot R.
St. John R.
St. Croix R.
MASSACHUSETTS
BOSTON
Lowell
Merrimac R.
Cape Ann
Worcester
Springfield
Cape Cod
NANTUCKET
MARTHA'S VINEYARD
CONNECTICUT
HARTFORD
New Haven
Norwich
PROVIDENCE
RHODE ID.
NEWPORT
BLOCK I.
Montauk Pt.
Long Island Sound
LONG I.
Jersey City
Brooklyn
New York Bay
3 5 7
ATLANTIC HIGHLAND
MISSISSIPPI VALLEY
Mississippi River
ALLEGHANY MTS.
ADIRONDACK MTS.
GREEN MTS.
WHITE MTS.
ATLANTIC SLOPE
ATLANTIC OCEAN
15,000
10,000
5,000
Sea Level
SECTION ON THE FORTIETH PARALLEL.


SOUTH AMERICA
Scale, 620 Miles to an Inch.
0 100 200 400 600 800
Longitude West from Greenwich
80 70 60 50 40 30
10 0 10 20 30 40
100 90 80 70 60 50 40 30 20
EQUATOR
TROPIC OF CAPRICORN
CENTRAL AMERICA
CARIBBEAN SEA
PACIFIC OCEAN
ATLANTIC OCEAN
C.Gallinas
La Guayra
TRINIDAD I.
Maracaybo
Lake Maracaybo
CARACAS
Cartagena
Panama
Gulf of Panama
Magdalena R.
UNITED STATES OF COLOMBIA
BOGOTA
VENEZUELA
Orinoco R.
PLATEAU
SA. PARIMA
SA. PACARAIMA
LLANOS
GEORGETOWN
PARAMARIBO
CAYENNE
BRITISH DUTCH FRENCH GUIANA
ACARAI MTS.
Branco R.
Mouths of the Amazon River
Para R.
JOANNES I.
Para
Rio Negro
Yapura R.
Amazon R.
SELVAS OR FOREST PLAINS
Mt.Cayambe
Mt.Cotopaxi
QUITO
Mt.Chimborazo
Guayaquil
ECUADOR
C.Blanco
C.Parina
Maranon R.
UNITED STATES OF BRAZIL
GREAT CENTRAL PLAIN
Madeira R.
Tapajos R.
Xingu R.
Tocantins R.
C.St.Roque
Sa. Francisco R.
Pernambuco
C.St.Augustine
Bahia
PLATEAU OF BRAZIL
Mt.Itambe
Mt.Itacolumi
Mt.Itatiaya
SA. MANTIQUEIRA
ORGAN MTS.
Cape Frio
RIO JANEIRO
PERU
L.Reyes
LIMA
Callao
CHINCHA IS.
Cuzco
L.Titicaca
El Misti Vol. 12,900
Arequipa
BOLIVIA
Mt.Sorata 21,488
Mt.Illimani
LA PAZ
PLATEAU OF BOLIVIA
Sucre
Potosi
Pilcomayo R.
Paraguay R.
Parana R.
PARAGUAY
ASUNCION
ST. FELIX IS.
Tucuman
CHILE
ANDES
ARGENTINE REPUBLIC
PLAINS
PAMPAS
Mt.Aconcagua 22,867
Mendoza
Cordova
Rosario
Valparaiso
SANTIAGO
JUAN FERNANDEZ
BUENOS AYRES
URUGUAY
MONTEVIDEO
La Plata River
Colorado R.
PATAGONIA
CHILOE I.
FALKLAND IS. (To Gt.Britain)
TIERRA DEL FUEGO
STATEN I.
Strait of Magellan
Cape Horn
20,000
15,000
10,000
5,000
El Misti Vol.
Mt.Sorata
Mt.Illimani
PLATEAU OF BOLIVIA
L.Titicaca
La Paz
Sucre
HIGHLAND OF THE ANDES
Callao
GREAT CENTRAL PLAIN
PLATEAU OF BRAZIL
Mt.Itatiaya
Cape Frio
PACIFIC OCEAN
PROFILE SECTION FROM CALLAO TO CAPE FRIO
ATLANTIC OCEAN

GEOGRAPHY.

1. Geography is a description of the earth with respect to its form, structure, political divisions, products and inhabitants. It has three branches —**Mathematical** or **Astronomical, Physical** and **Political.**

2. **Astronomical** or **Mathematical Geography** deals with the shape, size and motions of the earth.

3. **Physical Geography** treats of the earth's surface, its divisions into land and water, the atmospheric conditions, the location of minerals, and the distribution of animal and plant life.

4. **Political Geography** describes the various countries and the peculiarities of the people inhabiting them.

MATHEMATICAL GEOGRAPHY.

SIZE AND FORM OF THE EARTH

5. **The earth** is nearly round. It does not thus appear because so very little of it is seen at a time. Its true shape is an **oblate spheroid**; that is, a **sphere** slightly depressed or flattened at the **poles.**

6. **A sphere** is a solid bounded by a curved surface, every point on which surface is equally distant from the center.

7. **The poles** are two points on the surface of a sphere which are equally distant from every point in a **circumference.**

8. **The circumference** is the greatest distance around a sphere.

9. **The diameter** is the greatest distance through a sphere.

10. We have many proofs that the earth is round:

(*a*) The fact that ships have sailed around it.

(*b*) The shadow cast by the earth upon the moon is round.

(*c*) The horizon is everywhere a circle.

(*d*) When a vessel is coming in from sea, first the tops of the masts are seen, then the sails, and, lastly, the hull.

11. The circumference of the earth is nearly 25,000 miles; the diameter is about 8,000 miles.

MOVEMENT OF THE EARTH.

12. Apparently the **earth** stands still, and the sun moves around it each day. As a matter of fact, the earth rotates on its axis (an imaginary line passing through the center of the earth and extending from pole to pole) once each day; and revolves about the sun at a fixed rate of speed once each year.

13. **The daily rotation** of the earth causes night and day because only one-half of its surface is turned toward the sun at a time. The earth turns from west to east, which makes the sun appear to rise in the east and set in the west.

14. **The yearly revolution** of the earth and the inclination of its axis (23½° toward the plane of its orbit, the path in which it moves around the sun) causes the change of seasons.

REPRESENTATIONS OF THE EARTH.

15. **A map** is a representation of the earth's surface, in whole or in part, by means of symbols drawn upon paper. A **globe** is a map drawn upon a sphere.

16. For convenience in locating places, lines called circles are drawn on maps. A **Great Circle** divides the earth into two equal parts called hemispheres. A **Great Circle** corresponds to a circumference.

17. **A Small Circle** divides the earth into unequal parts.

18. **The Equator** is a great circle, every point on which is equally distant from the poles. (By poles we understand the imaginary points at the ends of the earth's axis.)

19. **The Tropic of Cancer** is the small circle 23½° north of the equator.

20. **The Tropic of Capricorn** is the small circle 23½° south of the equator.

21. **The Arctic Circle** is the small circle 23½° from the North Pole.

22. **The Antarctic Circle** is the small circle 23½° from the South Pole.

23. **Parallels** are small circles parallel to the equator.

24. **Meridian Circles** are great circles passing through the poles at right angles to the equator.

LONGITUDE AND LATITUDE.

25. **Latitude** is the distance north or south of the equator, measured in degrees along a meridian. Places between the equator and the North Pole are in north latitude; places between the equator and the South Pole are in south latitude. Places on the equator have no latitude.

26. **Longitude** is the distance east or west of a chosen meridian, measured in degrees along the equator or any parallel. Places east of the selected meridian are in east longitude; places west are in west longitude. Places on the selected meridian have no longitude.

27. The meridian which is generally taken in reckoning longitude is the one passing through Greenwich observatory, near London. In the United States the meridian passing through Washington is sometimes chosen.

THE ZONES.

28. **The earth** is warmed by the sun's rays. The warmth depends upon the manner in which the sun's rays strike the surface. Vertical rays, or those which strike the earth most directly, give the greatest heat. Slanting rays impart less heat. Consequently the warmest part of the day is at noon, when the sun is directly overhead and the rays strike more vertically.

29. The manner in which the sun's rays strike the earth's surface depends upon the inclination of the axis, consequently the warmest season is summer, when the earth is so turned that the rays strike more vertically. Places along the equator have perpetual summer.

30. **When the North Pole** is turned toward the sun, the rays strike the Northern Hemisphere more directly than the Southern, hence at that time the northern portion of the earth is the warmest. When the South Pole is turned toward the sun the situation is just reversed.

31. **The farther north or south** from the equator we go the less heat we encounter, because the sun's rays are striking the earth at a greater slant. Consequently at the Equator it is extremely warm, at the poles extremely cold, while in the interlying belt it is neither hot nor cold.

32. **The Torrid Zone** extends from the Tropic of Cancer to the Tropic of Capricorn.

33. **The Temperate Zones** lie north and south of the Torrid Zone. The **North Temperate Zone** lies between the Tropic of Cancer and the Arctic Circle; the **South Temperate Zone** lies between the Tropic of Capricorn and the Antarctic Circle.

34. **The North Frigid Zone** extends from the Arctic Circle to the North Pole.

35. **The South Frigid Zone** extends from the Antarctic Circle to the South Pole.

PHYSICAL GEOGRAPHY.

LAND.

36. **The total area** of the earth's surface is about 196,972,000 square miles. Of this amount, about one-fourth is land and the remainder is water.

37. **The land** is divided into continents, peninsulas, isthmuses, capes and islands.

38. **A continent** is a very large body of land. The continents in order of size are, beginning with the largest, Asia, Africa, North America, South America, Europe and Australia.

39. **An island** is a body of land, smaller than a continent, surrounded by water. Islands are of two kinds—**Continental** and **Oceanic.**

40. **Continental islands** are those lying near the continent. They are supposed to have been a part of the mainland at one time.

41. **Oceanic islands** are those lying far out in the ocean. These are mostly rocky, showing that they have been thrown up by volcanic eruptions.

42. **Islands** occur singly or in groups. A group of islands is called an **archipelago.**

43. **Some islands** have been formed by millions of tiny creatures called **polyps.** These are known as **coral islands.** They are usually circular in form and enclose a small body of water which has a small opening into the ocean. These islands are called **atolls** and the water enclosed, a **lagoon.**

44. **A peninsula** is a portion of the mainland almost surrounded by water.

45. **An isthmus** is a narrow strip of land connecting two larger bodies of land.

46. **A cape** is a mere point of land extending into the water. If it is high it is called a **headland** or **promontory.**

47. The portion of land which borders on the ocean is called the **coast.** If the waves are constantly eating it away, it is called **a wearing coast.** If the water is constantly receding and new land is being built out of the sands cast up by the action of the water, it is known as a **building coast.**

48. **A reef** is a chain of rocks lying near the surface of the water.

49. **A mountain** is an elevation of land much higher than the adjacent land.

50. **A mountain range** is a chain of mountains.

51. **A mountain system** is a series of ranges extending in the same direction.

52. **A volcano** is a mountain which throws out lava, steam and gases. The opening through which the substances are poured is called a **crater.**

53. Volcanoes may be active or extinct. An **active volcano** is one constantly or frequently in a state of eruption. An **extinct volcano** is one once active, but now quiet.

54. **A plateau** is a broad, elevated area of land. If it is level it is known as a **table-land.**

55. **A plain** is a level or gently rolling area of land.

56. **A desert** is an arid barren tract of land. The fertile spots are called **oases.**

57. **A water-shed** or **divide** is the line of division separating two tracts of land which contribute to the supply of rivers flowing in opposite directions.

58. **A river-basin** is the area of land drained by a river and its branches.

59. **A valley** is the tract of land lying between ranges of hills or mountains. If it is narrow and has steep sides it is called a **cañon.**

WATERS. (Oceanic.)

60. **The ocean** is the largest body of water on the surface of the earth. It is divided by the continents into five portions, called oceans. These, in order of size, beginning with the largest, are the **Pacific, Atlantic, Indian, Antarctic** and **Arctic.**

61. The portions of the ocean running into the land are called **seas, gulfs, bays, channels, sounds** and **straits.**

62. **A sea** is a large body of salt water wholly or nearly surrounded by land.

63. **A gulf** or **bay** is a portion of the ocean running into the land. A bay is smaller than a gulf.

64. **A strait** is a narrow stretch of water connecting two larger bodies of water. If it is wide it is called a **channel.**

65. **A sound** is a shallow channel or bay.

66. **The waters** of the ocean are in a constant state of disturbance, due to the tides, ocean currents and winds. The disturbances noticed on the surface in the form of rising and falling masses of water are called waves. These are due to the winds. **Tidal waves** are immense waves that roll in upon the land.

67. **Tides** are the daily rising and falling of the water due to the rotation of the earth. The rising of the water is called the **flood tide**; the falling, the **ebb tide.**

68. **Ocean currents** are streams of water flowing in the ocean, caused by the unequal heating of the waters in the Frigid and Torrid Zones, the winds and the rotation of the earth. The principal currents are the **equatorial current, Gulf Stream, Japan current** and **Arctic currents.**

WATERS. (Continental.)

69. **A lake** is a body of fresh water entirely surrounded by land.

70. **A river** is a large stream of water flowing along a channel or bed.

71. **Tributaries** are the streams which unite to form rivers.

72. **A river** with all its tributaries is called a **river system.**

73. **The source** of a river is the place where it begins to flow.

74. **The mouth** of a river is the place where its waters empty into another body of water.

75. **The bed** of a river is the bottom of the channel in which it flows. Up stream or up a river is toward its source; down stream or down a river is toward its mouth.

76. **A water fall** or **cataract** is the abrupt drop of the waters of a river from one level to another.

77. **Rapids** are the gradual drop of the waters of a river from one level to another.

78. **A glacier** is an immense field or stream of ice and snow moving slowly down a mountain slope or valley.

79. **An avalanche** is a great mass of snow and ice sliding swiftly down a mountain side.

80. **Lagoons** are parts of the ocean that have been cut off from the ocean by shifting sands.

81. **A harbor** is a bay that is sheltered by the land.

82. **The Equatorial current** is a stream of water constantly flowing westward.

83. **The Gulf Stream** is a part of the Equatorial current, and gets its name because of its proximity to the Gulf of Mexico.

84. **The Japan current** is a warm stream in the Pacific Ocean, and gets its name because it is near Japan.

85. **A spring** is a small stream of water flowing from the earth. Springs frequently contain minerals in solution, and are called **mineral springs.**

86. **A geyser** is a hot spring that pours water and steam into the air with great violence.

87a. An iceberg is a large mass of floating ic.

RAINFALL.

87. **The heat** of the sun transforms large quantities of water into a vapor which mingles with the air or atmosphere. The amount of vapor that will be taken up by the air depends upon the temperature. Warm air will hold more vapor than cold.

88. **When the air** can take up no more moisture it has reached the dew point.

89. **When the air** becomes slightly chilled below the dew point, moisture is deposited upon objects. This is called **Dew.**

90. **When the air** is rapidly cooled below the dew point the moisture in the clouds falls in the form of drops called **Rain.**

91. **Snow** is frozen moisture or vapor. **Hail** is frozen rain.

92. Enough water falls in the form of snow and rain to cover the surface of the earth to a depth of four feet annually.

93. **The rainfall** is not evenly distributed. On some parts of the earth there is almost constant rainfall, while in other places there is scarcely any.

94. **Moisture** is a part of the wind and is borne with it from place to place. Moisture from the ocean winds is precipitated in the form of rain.

95. **The Equatorial cloud ring** is a belt of clouds that hangs over the Equator. It follows the sun and marks the seasons of the tropics.

96. **The trade winds** water the plains of each hemisphere beyond the tropics, and the counter trade winds water the plains of the temperate zones.

THE HEMISPHERES.

97. There are two **hemispheres,** the **Eastern** and the **Western.**

The **Eastern Hemisphere** is nearly twice as large as the Western.

98. The two hemispheres have many resemblances. The greater part of the land is found in the northern part of both. Each one widens toward the north and narrows to a point at the south. The coasts of the northern parts are well indented with seas and bays, thereby affording excellent harbors, while the southern portions have few indentations.

99. **The Pacific Ocean** is larger than all the other oceans combined. The **Atlantic** is about half as large as the Pacific.

100. **The Arctic** is the smallest. The **Indian** is wholly in the Eastern Hemisphere, and is noted for its violent hurricanes.

101. **The Antarctic** or Southern is noted for its numerous icebergs.

THE HIGHLANDS AND SLOPES OF THE EARTH.

102. The great highlands of the earth extend in the form of a horseshoe from Cape Horn to the Cape of Good Hope.

103. The primary highlands of the Western Hemisphere are on its western border, and those of the Eastern Hemisphere on its eastern border.

104. The great slope is formed by the land descending from the great highlands toward the center, forming the Atlantic Ocean, which is called the great basin of the world's relief.

105. The slope of the great or primary highland in the Western Hemisphere toward the Pacific is abrupt, while the slope toward the Atlantic Ocean is long and moderate, and contains on the Atlantic coast a secondary highland. This highland slopes toward the great highland, forming the grand river system of the northern part of the Western Hemisphere.

106. Whenever there is a secondary highland it slopes toward the primary highland and forms what is known as the continental drainage system.

WINDS.

107. **Wind** is air in motion.

108. Wind is chiefly caused by the unequal heating of the atmosphere. The cold air of the poles flows toward the Equator, thus raising the lighter warm air, which flows toward each pole as an upper current.

109. **The trade winds** are those constant currents flowing from the poles to the Equator. Because of the rotations of the earth they appear to come from the northeast in the northern hemisphere and from the southeast in the southern hemisphere.

110. **The anti-trade winds** are constant winds of the temperate latitudes that blow toward the poles. They are the warm upper currents that have become cold and have fallen to the surface. Because of the rotation of the earth they appear to blow from the southwest in the northern hemisphere and from the northwest in the southern hemisphere. They are sometimes called return trade winds.

111. **The Monsoons** are winds that blow six months in one direction and then six months in the opposite direction. These winds are most prevalent on the western and southern coasts. When the direction of blowing changes there are severe storms.

112. **The calm belts** are narrow zones in which there is little or no wind. These belts do not extend around the world. One is at the Equator, the other two are isolated, one near the Tropic of Capricorn and the other near the tropic of Cancer. Hurricanes and terrific storms are prevalent in these belts.

113. **Variable winds** are those that are due to local causes. They are mostly inland breezes.

114. **Land and sea breezes** are those that blow from the sea during the day and from the land during the night.

115. **Cyclones, tornadoes, typhoons** are whirling storms caused by the air next to the earth being overheated.

116. **Simoons and Siroccos** are hot dry winds from the Desert of Sahara.

CLIMATE.

117. Variation in different sections relative to heat and moisture is called **climate.**

Climate is modified chiefly by latitude, the obliquity of the rays of the sun, ocean currents, distance from the ocean, elevations and mountains.

118. **Latitude** determines the zone of a place.

119. Wind modifies climate, both in respect to temperature and moisture.

120. **Elevation** affects the temperature only.

121. **Mountain ranges** facing warm waters condense the moisture so that there is a rainfall on the seaward side of the mountains, and the wind passes over dry and cold into the slope beyond.

122. **Ocean currents** warm the winds and thus impart heat and moisture to the neighboring lands. This is also true of the great lakes and other bodies of water.

VEGETABLE LIFE.

123. Vegetable life is governed by heat and cold, hence it must vary with the climate.

124. **The great slopes of the earth** are rich in vegetation because of their deep rich soil.

125. **The Tropical belt** is the richest in vegetation. Fruits and flowers are constantly growing and the trees are in leaf the year round.

126. **The Temperate belts** produce the most of the grains and **grasses of the world.**

127. Since rice requires a moisture and warmth it grows in the parts of this belt near the Torrid Zone. It is said to be the food of nearly one-half of the human race. Wheat stands next as a food; maize is the chief grain and is cultivated in the Temperate and Tropical Zones of the entire world. Rye, oats and barley grow in higher latitudes than wheat.

128. **The Arctic belts** comprise the Frigid Zones. The northern belt has but few of the agricultural staples. In the lower latitude there are a few stunted trees, while in the higher latitude there are only lichens and mosses. In the Antarctic Zone there has been found no trace of vegetable life in either land or sea.

THE HUMAN RACE.

129. The population of the world is over one and one-half billion of people. The human race is divided into five classes, distinguished chiefly by color and shape of the skull.

130. **The Caucasian or white race** is the most widely spread, the most intelligent and powerful.

131. **The Mongolian or yellow race** is found chiefly in Eastern and Northern Asia. The Chinese and the Japanese are the best representatives.

132. **The Ethiopian or negro race** is nearly black. Its home is in Africa, but it is found in nearly every part of the world.

133. **The Malay or brown race** inhabits Southeastern Asia and the islands of the Pacific and Indian Oceans.

134. **The American Indian or copper colored race** is found only in America. This race is rapidly disappearing.

GOVERNMENT.

135. When people associate together for mutual benefit the system of laws by which they govern themselves is called **government.**

136. The prevailing forms of governments are the monarchy and the republic.

137. **A monarchy** is a form of government in which the highest power is held by one man during his life.

138. **A republic** is a form of government in which the laws are made by the people or by representatives chosen by the people. The President is the chief officer and the Constitution is the highest power.

139. A city is a town vested with certain rights and privileges.

140. **The capital** of a country is the city where its laws are made.

141. The largest city is called the metropolis.

Physical and Geographic Features of the United States and Respective States.

Location.—The United States stretches from the Atlantic Ocean on the east to the Pacific Ocean on the west, and from the Gulf of Mexico on the south to the Canadian border on the north. It also embraces the large territory of Alaska, extending to the Northern seas, the Hawaiian group of islands, the Philippines, Porto Rico, Guam and part of the Samoan Islands.

Area.—Excepting Alaska, and the island possessions, the area of the United States is 3,025,600 square miles. The water surface is about 55,500 square miles. The lake and river and land boundary on the Canadian side is 3,700 miles long, and on the Gulf 2,105 miles long. Alaska is estimated to contain about 600,000 square miles.

Population.—The census of 1900 returned the population of the United States at 76,303,387; and with the same percentage of increase as marked the last decade, the population for 1905 is estimated at 81,300,000. The population embraces people from every civilized country on the globe.

Mountains.—Two great chains of mountains, the Alleghanies in the East and the Rockies in the West, serve to divide the United States into three grand geographical sections, which are usually denominated the Atlantic slope, the valley of the Mississippi, and the Pacific slope. The Alleghanies embrace an irregular northeast and southwest group, or series of chains with valleys between. Their northern extremities, as in New Hampshire and Vermont, frequently rise to a height of 5,000 to 6,000 feet, and so with their southern extremities in the Carolinas. The Rockies form an immense chain, following the entire Pacific Coast of both Americas. The Pacific slope is broken by several minor ranges. The Atlantic slope is of rolling formation terminating in a level some 100 miles wide contiguous to the ocean. The Mississippi Valley is well named, till it approaches the foot-hills of the Rockies, when it becomes arid and mountainous. Its most prominent physical features are its great rivers.

Waters.—The Atlantic Ocean washes the east coast of the United States, the Pacific the west, the Gulf of Mexico the south, the Great Lakes the north. The ocean and Gulf coasts are freely indented with capacious bays; affording good harbors. Michigan and Champlain are the only great lakes lying wholly within the boundries of the United States. The rivers of the United States are generally grouped as those of the Mississippi Valley—large, lengthy, sluggish and generally navigable; those of the Atlantic slope, draining into the Atlantic—short, rapid and not as a rule navigable, except after they become tidal; those which drain into the Gulf of Mexico—short, sluggish and partially navigable; those of the Pacific slope—not navigable, except in few instances; those flowing northward, as tributaries of the Red River of the North.

Climate.—No country has a more variable climate than the United States. It embraces every mood of temperature, from semi-tropical to arctic, yet is equable considering its averages, and salubrious considering its properties. It is perhaps the most conducive to health and long-life of any climate on the globe.

Soil.—The soil of the United States is the most productive of any similar area in the world. That of the Atlantic slope is rolling, somewhat rugged in the Eastern States, but with great fertility of valley, and generally under cultivation where possible. That of the Mississippi Valley is alluvial and susceptible of generous yields of cotton and the cereals. That of the Rocky Mountain approaches is arid, but susceptible of generous yield under irrigation. That of the Pacific slope is in general kindly, and particularly adapted for grains and fruits.

Forests.—All mountainous and rolling portions of the United States are, or have been, forest bearing, and the variety of woods numerous. Level portions, as those approaching the Gulf and Great Lakes, are productive of pine and hemlock varieties of wood.

Divisions.—The United States is divided into forty-five States. There yet remain of the home territory five Territories, Oklahoma, New Mexico, Arizona and Indian Territory, and Alaska. Other possessions are Philippines, Porto Rico, Hawaii, Guam, and part of Samoa.

History.—See page 567.

Government.—See Machinery of Government, *ante.*

Education.—The United States does not have charge of the common school system of the country, but it has in a general way extended encouragement to such schools by liberal gifts to incoming States of portions of the public domain. As will be seen by reference to Educational Statistics elsewhere in this work, the educational standard is high in the United States, illiterates among the native white born population numbering not more than 8 per cent.

Religion.—Religion is free in the United States, the Constitution forbidding interference with it. Nearly every religious sect in the world exists here, and religion flourishes of its own volition.

Minerals.—Iron is found in workable quantities in two-thirds of the States. Coal exists in paying quantities in more than half the States. Salt, sulphur, copper, borax, gypsum, marble and all kinds of building stones, abound. Nearly half of the precious metals of the world is produced in the United States.

Industries.—In agriculture, mining, manufactures, stockraising and other leading industries the United States excels every other country, as it does in aggregate wealth and income. Our greatest volume of exports is of food products, followed closely by manufactured articles.

Statistics.—For full statistics relating to other features of material resource, see tabular arrangements, in place.

Alabama.

Area and Population.—Alabama has an extreme length, north and south, of 330 miles, and a width east and west of 200 miles, 60 of which lie on the Gulf coast. The total area is 52,250 square miles. Population (1900) 1,828,697.

Cimate.—In the northern part of the State the climate is mild and salubrious. Frost and snow sometimes occur in the hilly sections. In the southern portion the climate is semi-tropical, and on the lowlands and along the rivers is malarial.

Soil.—The northern part of the State is broken into detached parts by the divide between the waters of the Gulf and Tennessee. While there is much surface impossible of cultivation, the valleys are fertile. The hilly country slopes off into a prairie section in the central part of the State, which is well adapted for cotton growing. The extreme southern section becomes low and level, and many parts are uncultivable.

Waters.—The Mobile is the principal river of the State. It is formed by the confluence of the Alabama and Tombigbee, and is navigable for large steamboats up to the confluence, a distance of some 45 miles. Both the Tombigbee and Alabama are navigable for light draft boats for 300 miles above their meeting points. The Black Warrior and Chattahoochee are both navigable for from 200 to 300 miles. There are several smaller rivers susceptible of more or less navigation by light craft. Mobile Bay extends into the State a distance of some 40 miles, receives the Mobile River, and affords one of the finest harbors on the Gulf coast.

Forests.—Alabama is well wooded, especially in the northern and central parts, and nearly every kind of timber flourishes. Cypress and cedar grow most vigorously in the central and southern parts, while on the extremities of the Alleghanies oak, poplar, elm, chestnut and pine grow to great perfection.

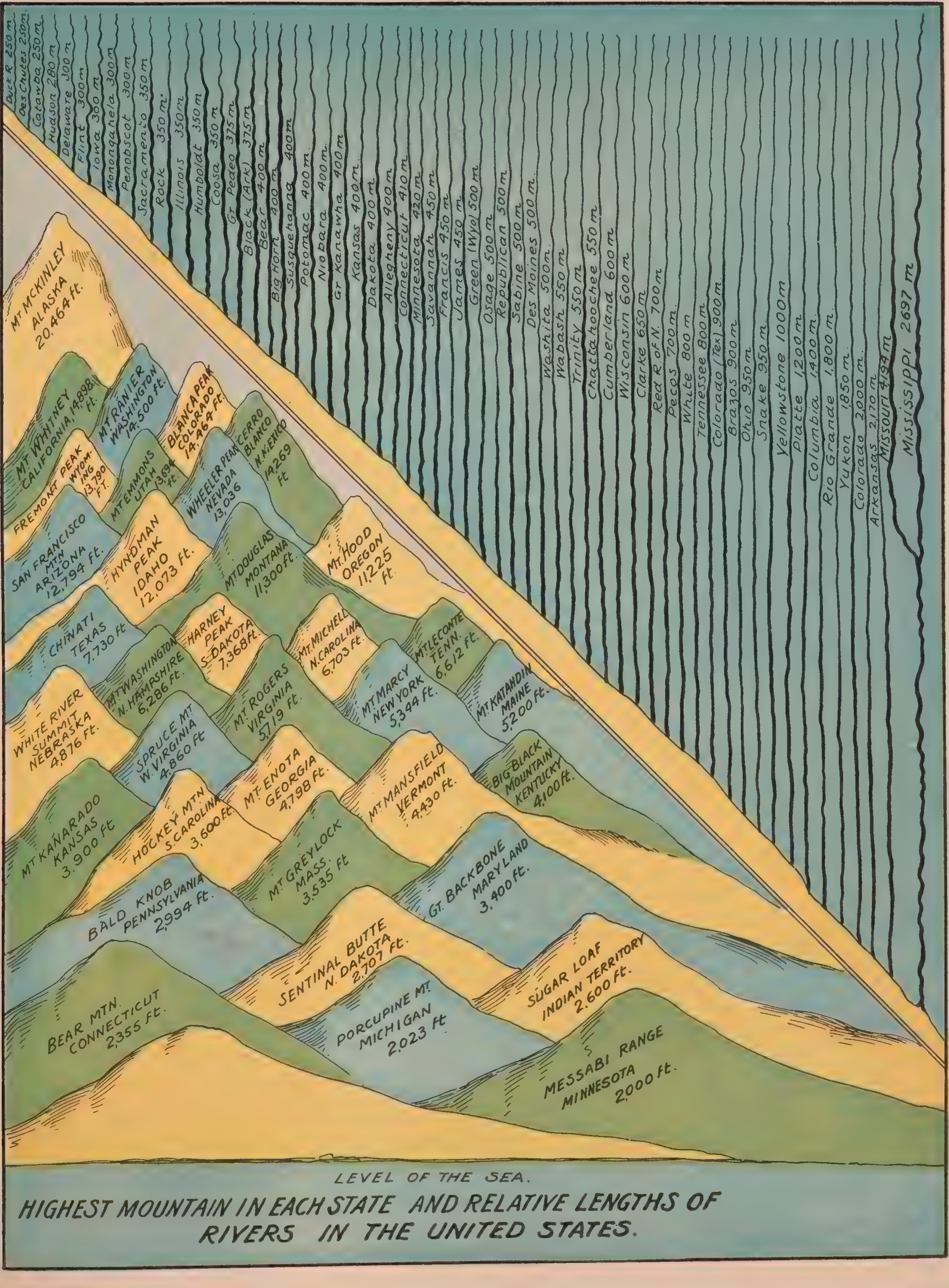
Products.—The soil products are largely cotton and corn, but most fruits and vegetables can be grown profitably under proper cultivation. Rice and sugar cane can also be cultivated. Manufactures have had a great growth during late years, owing to the introduction of cotton mills and the utilization of the immense coal and iron-ore fields in the northern part of the State. Marble, limestone, galena, manganese, plumbago, and a very superior granite are also among the mineral products. Gold was claimed to exist, but it has not been found in paying quantities.

Cities.—Mobile, on the west side of Mobile Bay, population (1900) 38,469, is the principal city and port of entry. Montgomery, the State capital, on the Alabama River, population (1900) 30,346, was the capital of the Confederacy in 1861. Birmingham is the great manufacturing centre of the State. Its growth in population and wealth has been phenomenal. Population (1900) 38,415. Other cities of greater or less importance are Tuscaloosa, Eufaula, Huntsville and Selma.

Education.—Among the most important of the higher educational institutions are the Alabama University at Tuscaloosa, Southern University at Greensborough, State Medical School at Mobile, State Agricultural College at Auburn, the Booker Washington Industrial School for Negroes at Tuskegee, Institution for Deaf, Dumb and Blind at Talladega, Insane Asylum at Tuscaloosa, Blind Asylum, Mobile. The State provides common schools in the districts. The races are educated separately. The school age is between seven and twenty years.

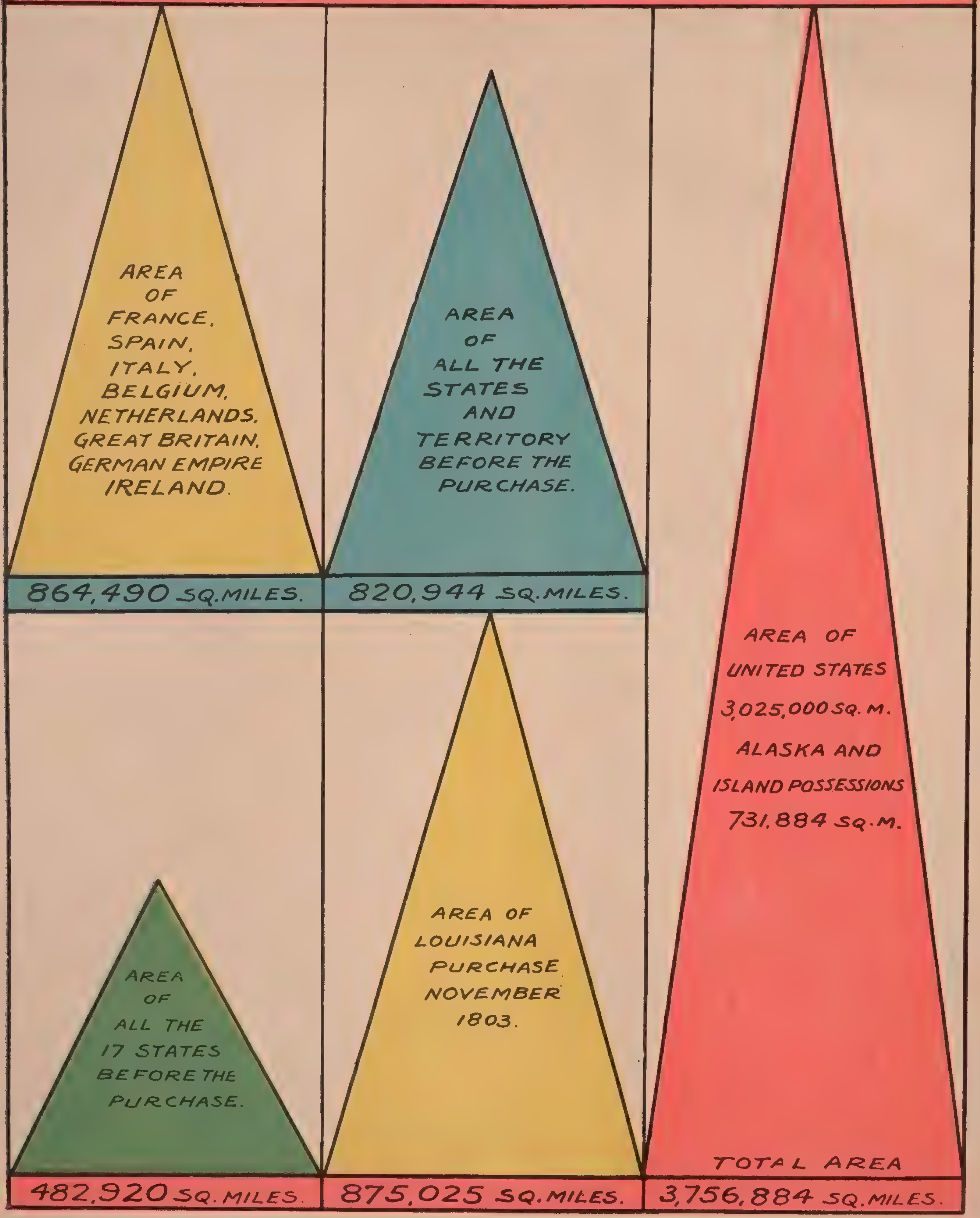
Government.—The governor is elected for four years. He must have resided seven years in the State and ten years in the United States. The legislature meets quadrenially, and the session is limited to fifty days. Judicial officers are elective. Salary of members of the legislature $4 per day.

History.—See ALABAMA in vocabulary, *ante*.



HIGHEST MOUNTAIN IN EACH STATE AND RELATIVE LENGTHS OF RIVERS IN THE UNITED STATES.

RELATIVE SIZE OF THE LOUISIANA PURCHASE.



Alaska.

Area and Population.—Alaska Territory has a length of 1,100 miles and a breadth of 800, with a total area of 590,884 square miles. Population (1900) 63,592.

Topography.—There are three principal ranges of mountains, the Coast range, Rocky Mountains and Alaska range. Mount St. Elias, in the Coast range, is 18,000 feet high. Mount McKinley, 20,464 feet high, is the highest peak in North America. There are many volcanoes, twelve of which are active.

Waters.—The Yukon is the great river of Alaska. It is 2,000 miles long, and navigable for nearly 1,200 miles. Other important rivers are the Porcupine, Tanana, Koyukuk, Kuskokwim, Copper, Chilkat and Stikine. There are many lakes in the interior, and the coast is indented with numerous inlets and bays.

Climate.—Though lying mostly in arctic latitudes the climate of Alaska, especially contiguous to the Pacific coast, is milder than in corresponding latitudes on the Atlantic coast. In the central and northern parts, away from the influence of the warm Japan current, the climate is naturally cold in winter, the thermometer, at times, descending to 30° and 40° below zero. The summers come quickly, are brief and sometimes very warm.

Soil.—The soil in the valleys is productive of grasses and hardy vegetables, and the mountain sides are as a rule forest-clad. In the Yukon Valley are considerable stretches of marshy but plant-bearing plains. Mosses grow luxuriently and afford abundant food for the herds of reindeer which are now being propagated.

Towns.—The principal towns are Sitka, the capital, on Baranof Island; Nome, at Cape Nome; Dyea, on Chilkoot Inlet; Skagway, on the same inlet, and Juneau, near the entrance to Lynn Canal.

Products.—The fisheries were for a long time the leading industry in Alaska, and were a source of great profit, salmon abounding. But after the discovery of gold, the mining of that metal became the leading industry and most valuable output. The gold fields are extensive, the metal being found throughout the drainage system of the Klondike, and extensive placer mining is carried on in the Cape Nome region. The annual find of gold runs from $20,000,000 to $25,000,000, and is increasing in proportion to mining facilities. A railroad, some 40 miles long, has been built from Skagway to Bennett, and other lines are projected.

Government and Education.—The government is a modification of that usual for Territories, commissioners being substituted for a governor. The laws of Oregon, so far as practicable, prevail, and are administered by justices of the peace and the commissioners sitting as United States Circuit Court judges. The Federal Government appropriates $35,000 annually for school purposes.

History.—See ALASKA in the vocabulary, *ante*.

Arizona.

Area and Population.—The Territory of Arizona lies in the southwestern part of the United States. From north to south it is some 380 miles in length, and from east to west 262 miles least width, 322 greatest width. Area, 113,020 square miles. Population (1900) 122,931.

Climate.—In Southern Arizona the climate is hot. Frosts and snows are unknown. On account of the dryness of the air the heat is not as oppressive as where the air bears moisture. In the northern and more mountainous sections the climate is that of the temperate zone, both frost and snow occurring in winter.

Surface and Soil.—Arizona is very mountainous, especially in the northern and central part. Some of the peaks rise to the height of 10,000 to 12,000 feet, and many were once active volcanoes. In the southern part there are arid and sandy stretches, which are mostly unproductive.

Waters.—Rivers are in general small and mostly fed by mountain snows. The only large river is the Colorado, which is over 1,200 miles long, and separates Arizona from California and Nevada. It is navigable for about 600 miles from its mouth. The deep cañons of the Colorado are noted for their great depth and precipitate edges.

Products.—Because of lack of water but little of the soil of Arizona is productive. Yet there grows in parts a "grama" grass which produces grazing. Mining is the chief industry.

Cities.—The principal cities are Tucson, Prescott, Tombstone, Phœnix, Yuma and Flagstaff. Phœnix is the State capital, with a population of 5,544. Tucson has a population of 7,531.

Education.—Arizona has a free school system, but outside of the settlements but few educational facilities exist. Inside the settlements, the enrollment of pupils and average attendance are fair.

Government.—The governor is appointed by the President of the United States for a term of four years. The legislature meets biennially, and the length of the session is 60 days.

History.—See ARIZONA in vocabulary, *ante*.

Arkansas.

Area and Population.—Arkansas, bordering on the west side of the Mississippi River, is 240 miles long and 275 miles wide, containing 53,850 square miles. Population (1900) 1,311,564.

Topography.—Bordering the Mississippi, the country is low, level and subject to inundation, except where protected by levees. The middle and western section is, in part, mountainous, but with wide prairie-like valley stretches. The Ozark Mountains extend through these sections from Missouri in a southwestern direction, and are broken into many minor systems, as the Black Hills, Cane Hills, Pea Ridge, etc.

Climate.—The southern part of the State has a semi-tropical climate like that of the Gulf States. In the northern portion the climate is variable, its general characteristics being those of the temperate zone. It is healthful, but in the lowlands there is a tendency to malaria.

Soil.—In all the lowland, prairie and valley portions, the soil is productive, yielding cotton, vegetables and many of the cereals.

Waters.—The Mississippi River washes the eastern boundary. The Arkansas River flows through the State from northwest to southeast. It is navigable throughout the State. Other rivers are the St. Francis, White, Black, Washita and the Red River, the lowest branch of the Mississippi. Many springs in the State furnish medicinal waters.

Products.—The splendid forests in certain portions of the State produce much lumber. The stock-raising industry is a growing one. Cotton, corn, wheat and vegetables are natural products of a fertile soil, but oats, tobacco, sorghum and fruits are also profitably grown. Mineral products are varied, and among them is the celebrated "hone-stone," so valued for its sharpening qualities.

Cities.—Little Rock, the capital, on the Arkansas River, has a population of 38,307. Fort Smith, in the western part of the State, has a population of 11,587. Hot Springs, population 9,973, is noted for its medicinal waters. Helena has a population of 5,550.

Education.—A school must be provided in each district for at least three months in a year. There are several higher institutions of learning in various parts of the State, all well conducted.

Government.—The governor is elected for two years, and must have been a citizen and resident of the State for four years. The legislature meets biennially, and the session is limited to 60 days. Salary of members $6 per day.

History.—See ARKANSAS in vocabulary, *ante*.

California.

Area and Population.—Greatest length of State north and south, 770 miles; greatest breadth, east and west, 375 miles. Area 158,360 square miles. Population (1900) 1,485,053. It has a coast line of nearly 1,000 miles.

Topography.—California divides topographically into a coast region, a mountain and valley region and a desert region. The Sierra Nevada Mountains form part of the eastern boundary. Mt. Shasta, the highest peak of this range, rises to the height of 14,442 feet. The Coast range, nearer the ocean, is lower, its highest peaks not rising above 4,000 feet. A lesser range is that of Mt. Diablo. All are well forested. Between these ranges are the valleys of the Sacramento and St. Joaquin, constituting a vast central basin. The Coast region slopes toward the Pacific, and is a magnificent country. To the south is the desert region of some 10,500 square miles in extent, sandy and barren.

Climate.—The climate is quite variable, owing to topography. Winters are often severe in the north. The coast climate is delightfully mild. In the centre and east climate is temperate. There are two seasons, wet and dry, similar to the winter and summer of the Atlantic coast.

Soil.—The coast region is generally fertile. In dry sections or seasons irrigation is much in vogue. The valleys are very productive. The desert sections are unproductive, as a rule. It is estimated that one-third of the State is arable. In the north soil products depend on the extent of the rainfall.

Waters.—The Colorado River skirts the State on the east. The Sacramento flows through the rich valley of the same name, which is some 50 miles wide and 400 miles long. The San Joaquin drains the San Joaquin Valley for a distance of 350 miles. Both are navigable for short distances and for light craft. Other rivers are the Kern, Klamath and Trinity. The numerous mountain streams in the south are mostly absorbed by desert sands. There are numerous lakes, the chief of which are Tahoe, Tulare, Clear, Owen's and Mono.

Forests.—The mountains are well timbered, and a wonderful feature of forest growth is the groves of "Big Trees" which are found in the Calaveras and Mariposa regions.

Products.—Gold was discovered in California in 1848, and since then has been an important mineral product, the output in 1852 having reached a maximum of over $80,000,000. Silver, copper, lead, quicksilver, borax, soda, sulphur, antimony, coal, salt, nickel, manganese, graphite, platinum, kaolin, granite, are among the mineral products found in quantities and extensively mined. All of the cereals grow in abundance, and much wheat and flour is exported. Fruits of all kinds grow abundantly and of superior quality, and are an important article of export. Large quantities of wine are manufactured from grapes, and California wine is a favorite at home and abroad. The production of raw silk, bee-farming, wool-production, cattle raising, are important industries.

Cities—San Francisco, with a population of (1900) 349,782, is the chief city and entrepot. It is situated on a peninsula which separates San Francisco Bay from the Pacific Ocean. Oakland, on the east side of the bay is a residential city of 66,960 population. Other leading cities are Sacramento, the State capital with a population of 29,282; Los Angeles, in the southern part of the State, population 102,749; Stockton, population 17,506; San José, population 21,500; Santa Cruz, population 5,659; Santa Barbara, population 6,387; San Diego, population 17,700.

Education.—California has a fine common school system, liberally supported by the State. There are four excellent normal schools, and fourteen incorporated colleges and universities. The Leland Stanford, Jr., University is one of the most liberally endowed and fully equipped institutions in the world. The University of California is noted for possession of the Lick Observatory.

Government.—The governor is elected for four years. He must be twenty-eight years old and have been a resident of the State for two years. Salary, $6,000. The legislature meets biennially and sits for 60 days. Members receive $8 per day while in session.

History.—See CALIFORNIA in vocabulary, *ante.*

Colorado.

Area and Population.—Colorado has an extreme length of 390 miles, and a breadth of 270 miles. Total area 103,925 square miles. Population (1900) 539,700.

Topography.—The Rocky Mountains divide Colorado into an eastern and western section. The former is a plain suitable for agriculture and grazing; the latter is a high plateau, rich in minerals. The mountains are broken into many independent ranges, containing very high peaks, such as Long's, Pike's, etc. Between them are valleys or parks, rich in natural scenery, such as cañons, caves and passes.

Climate.—The climate is salubrious, the air being dry and pure. Winters are severe in the mountains, but more moderate on the plains. Snows melt quickly and grazing is possible all the year round. May, June and July are the rainy months.

Soil.—The park and plain lands of Colorado are fertile, and productive of the cereals and all the fruits and vegetables of the temperate zone. Mountain soils, except in rare instances, are not fertile.

Waters.—Many rivers find their source in the Colorado Mountains, and serve to drain and water the State. The principal ones are the Rio Colorado or Grand River, flowing westward into Arizona; the Rio Grande, flowing southward; the Arkansas, flowing southeastward; the South Platte, a tributary of the Missouri.

Products.—The cereals, fruits and vegetables of the temperate zone grow well in favored localities of Colorado, especially where irrigation has been introduced. Cattle and sheep raising are extensive industries. In some localities, as along the South Platte and Arkansas Rivers, considerable lumber is produced. The most valuable products of Colorado are from its mines, which are particularly rich in gold, silver, iron, galena, lead, zinc. Coal, soda, pyrites and other minerals are also found in paying quantities. Mineral springs. cold and hot, are numerous. The mountains abound in game, much of which is killed and shipped.

Cities.—The capital city is Denver, on the South Platte. Population (1900) 138,859. Other principal cities are Colorado Springs, a favorite health resort and seat of a large mining institute, population (1900) 21,085; Leadville, centre of an extensive mining region, population 12,445; Pueblo, centre of a grazing and agricultural region, population 28,157; Creede, Gunnison, Idaho Springs, Salida, Aspen, Cañon City, Greeley, Telluride, Trinidad and Boulder.

Education.—Common school government consists of a state board of education and district directors. School age is from six to twenty years, and schools are required to be open for at least 100 days in a year. There are several flourishing higher institutions of learning, as the Denver University, School of Mines at Golden, University of Colorado at Boulder, Agricultural College at Fort Collins, besides numerous colleges.

Government.—The governor is elected for two years; salary $5,000. The legislature meets biennially, and the session is limited to 90 days. Salary of members, $7 per day.

History.—See COLORADO in vocabulary, *ante.*

Connecticut.

Area and Population.—Connecticut is 90 miles long and 75 miles wide. Area, 4,990 square miles. Population (1900) 908,420.

Topography.—In its physical features, Connecticut is generally a hilly State, with a few crests, like Mt. Ball, rising as high as 2,300 feet. It is really the slope toward the Atlantic coast of the more elevated New England section to the north. Some of the bluffs are carried quite to the coast, and between them are several fine harbors. The Blue Hills and Housatonic Hills take the form of low ranges.

Climate.—The climate is that of New England, slightly modified by location—lengthy, cold winters, and warm summers. It is healthy, the country being free from swamps and malaria.

Soil.—In general the soil is thin, except in the valley of the Connecticut River, where superior tobacco and other crops are grown. But under intensive farming, the State occupies by no means a low agricultural status.

Waters.—The chief river is the Connecticut, flowing from north to south, and navigable as far up as Hartford. The next longest rivers are the Housatonic, Thames and Naugatuck.

Products.—The leading products of Connecticut are those of manufactories—textiles, hardware, notions, etc. Gardening, dairy-farming, fruit-growing and general produce-raising for contiguous markets, constitute the agricultural industry of the State. Minerals do not exist in workable quantities, if we except building stones and some of the important clays.

Education.—The common schools are numerous and richly supported by a State fund. Among the higher institutions of learning are Yale University, at New Haven; Trinity, at Hartford; Wesleyan, at Middletown; two State Normal Schools, and various State charitable schools for the afflicted.

Cities.—New Haven, on Long Island Sound, is a seaport and seat of extensive manufactures. Population (1900) 108,027. Hartford is the State capital, on the Connecticut River at the head of navigation. It is a manufacturing city. Population (1900) 79,850. Waterbury, on the Naugatuck River, is noted for its miscellaneous manufactures. Population 45,859. Other cities, noted for manufactures and trade, are Bridgeport, population 70,996; Ansonia, population 12,681; Danbury, population 16,587; Meriden, population 24,296; New London, population 17,548; Norwich, population 17,251; Willimantic, population 8,937; Winsted, population 6,804.

Government.—The governor is elected every two years. Salary $4,000. The legislature meets biennially and there is no limit to the length of the session. Members receive $300 annually.

History.—See Connecticut in vocabulary, *ante.*

Delaware.

Area and Population.—Delaware has an extreme length of 110 miles, and a breadth of 35 miles. Area, 2,050 square miles. Population (1900) 184,735.

Topography.—The section of the State toward the Pennsylvania border is rolling. As the State extends southward, it slopes into levels, and even into marshy sections.

Climate.—The climate is that of the temperate zone, somewhat modified by evaporations from Delaware Bay, especially in the southern part. It is healthful in the north, but a little malarial in the south.

Soil.—The rolling portions of Delaware are naturally fertile. The sandy portions are productive of fruits and vegetables, under good cultivation.

Waters.—The Delaware River and its bay wash the eastern boundary of Delaware. The Christiana, emptying into the Delaware, is navigable to, and a little above, Wilmington. The southern drainage system of Delaware is mostly into Maryland.

Products.—Both the soil and climate of Delaware favor fruit-growing, which is an important industry. Manufactures and shipbuilding are extensively carried on at Wilmington. Mineral products are glass-sand, kaolin and bog-iron ore. Shingles are made out of cypress found in the swamps.

Cities.—Wilmington is the chief city. It is a port of entry on the Christiana Creek near its mouth. It is a manufacturing city of great importance. Population (1900) 76,508. Dover, the capital of the State is the centre of a fruit-growing region. New Castle is a manufacturing town on the Delaware near Wilmington. Smaller towns are Lewes, Georgetown and Harrington.

Education.—The schools are governed by a state board of education and superintendent. Educational facilities are good. Among the higher institutions of learning are Delaware College, at Newark; State Normal University; Wesleyan Female University.

Government.—The governor is elected for four years. Salary $2,000. The legislature meets biennially and the session is limited to 60 days. Salary of members $5 per day.

History.—See Delaware in vocabulary, *ante.*

District of Columbia.

Area and Population.—Extreme length 10 miles; breadth 9 miles; area, 170 square miles. Population (1900) 278,718.

Topography.—The surface of the District is rolling, sloping to a level as it approaches the Potomac.

Climate.—The climate is a modification of that of the temperate zone, winter being mild and summer warm. While generally healthful, malaria prevails near the Potomac.

Soil.—The soil is in parts clayey, but mostly of a sandy texture. It is only of medium fertility, except under intensive cultivation.

Waters.—The District is washed on the west by the navigable Potomac. The Anacostia River joins the Potomac within the limits of the District, as does Rock Creek.

Products.—The products of the District, beyond those of the garden and fruit patch, are unimportant, it not being desirable to introduce extensive manufactures into a space dedicated to public buildings and desirable residences.

Education.—The common school system is liberal, and the average attendance high. The races are educated separately. The higher institutions are the Howard University for the colored, Columbian University, Georgetown University, Catholic University, Gallaudet College. It is to be the centre of the Carnagie institution for the dispensation of general information.

The Capital City.—As the capital of the United States it is the site of the most magnificent public buildings in the country. Among them are the Capitol itself, the White House, the Congressional Library, the Treasury Department, War and Navy Department, Washington Monument, Interior Department, Post Office Department, Department of Agriculture.

Government.—The President appoints for four years a Commission, composed of three members, which administers the government of the District, appointing the minor officials, and attending to the collection of half the taxes. Congress appropriating for the other half and for the expenses of the Commission. Two committees of Congress attend to the legislation.

History.—See District of Columbia in vocabulary, *ante.*

Florida.

Area and Population.—Florida has an extreme length of 460 miles, and a breadth of 400 miles. Total area, 58,680 square miles. Population (1900), 528,542.

Topography.—It is peninsular in shape. The surface is, for the most part, level, the highest elevation rising scarcely 300 feet above the sea. The Everglades, an extensive swamp, occupy a large part of the southern end of the State. To the north is a gently undulating section. To the west the surface is more rugged.

Climate.—The climate is semi-tropical. Frost is unknown in the southern parts. The temperature is very even, and the average medium. The atmosphere is not moist, as might be expected, but is inviting to those suffering from diseases incident to higher latitudes. There are many health resorts.

Soil.—The swampy sections are not cultivable, but grow valuable cypress and cedars. Other soils grow pines, magnolias, oaks and other valuable timber. The sandy soils of the more elevated portions of the State are not naturally fertile, but under cultivation respond readily, and yield fruits and vegetables in great profusion and of excellent quality. Cotton grows well in favorable localities.

Waters.—Among the various numerous rivers of Florida are the St. John's River, which empties into the Atlantic Ocean and is navigable. Other rivers, sluggish and partly navigable, are St. Mary's, Oclawaha, Apalachicola, Suwannee, Withlacoochee, Hillsborough, Caloosahtchee. There are a profusion of lakes, chief of which is Okechobee, some 40 miles long. The sluggish rivers and lake shores are rendered picturesque by timber fringes decorated with mosses and vines.

Products.—The mineral products are ochre, building stones, bog-iron ore, and phosphates for fertilizing. Cotton is raised in considerable quantities. Much lumber is produced from the valuable timber. The fisheries are important. But the orange grove, vegetable and fruit products of nearly every kind are sources of the most profit.

Cities.—Jacksonville, on the St. John's River, enjoys considerable trade, and is a favorite winter resort. Population (1900) 28,429. St. Augustine, the oldest city in the United States, is also a favorite resort. Fernandina on the Atlantic coast is noted for its fine harbor. Pensacola, on Pensacola Bay, is the site of a United States Navy Yard. Population 17,747. Key West is noted for its cigar-making industries. Population 17,114. Tallahassee is the capital of the State.

Education.—The State has a permanent educational fund, and educational work is progressive. Rollins College and the State Agricultural College are important institutions for higher education.

Government.—The governor is elected for four years. Salary $3,500. The legislature meets biennially and the session is limited to 60 days. Pay of members $6 per day.

History.—See Florida in vocabulary, *ante.*

Georgia.

Area and Population.—The extreme length of Georgia is 315 miles; extreme breadth, 250 miles. Population (1900) 2,216,331.

Topography.—In the south, for some distance back from the Gulf coast, the surface is low and swampy, with spots capable of cultivation. This feature is succeeded northward by a rising sandy region of dunes and terraces, which gradually fetches the altitude to as high as 500 or 600 feet above the Gulf level. The central portion of the States is rolling, gradually rising and growing more rugged until, in the north, it embraces the foot-hills of the Appalachian system.

Climate.—In the southern part, Georgia has a semi-tropical climate. As one proceeds northward it gradually becomes that of the temperate zone, snow and frost often occurring in the northern part. The climate of the centre is equable and healthful, and very inviting to invalids.

Soil.—The soil of the low islands which skirt the coast is productive of the famous sea-island cotton. The marshy soil of the coast is fertile where at all cultivable. The sandy soils to the north require intense cultivation to render them fruitful. Further north the soil becomes heavier and fertile, the valley sections being very productive.

Waters.—Georgia is skirted by 150 miles of Gulf coast, with many indentations. It is an exceedingly well watered State. The Savannah River is navigable to Augusta. Other important rivers are the Chattahoochee, Altamaha, Oconee, Ocmulgee, Ogeechee, Satilla, St. Mary's. Many mineral springs are found.

Forests.—Forests are extensive in the southern part of the State, and in the extreme northern portions. These consist of pine, cypress and the various hard woods.

Products.—Gold is occasionally found, but the chief minerals are iron ore, marble, slate, aluminum, copper, silver, zinc, lead and graphite. The leading industry is agriculture, and the State is productive of cotton, rice, sweet potatoes and corn. Grazing is carried on with profit. There are extensive fruit sections which have, of late, proved very profitable. Vegetables of all kinds yield profitable crops. There are many cotton mills with large annual outputs.

Cities.—Atlanta is the capital of the State. Population (1900) 89,872. It is a great railroad centre in the west-central part of the State, and the seat of extensive trade and manufactures, and of the capitol and many educational and other public buildings. Savannah, on the Atlantic coast, is an important commercial point. Population 54,244. Milledgeville was the former capital of the State. Augusta on the Savannah River, at the head of steamboat navigation, has a population of 39,441. Macon is an important railroad centre. Population 23,272. Columbus has great water power and extensive manufactures. Population 17,614. Rome is the centre of an extensive farming country. Population 7,291.

Education.—Georgia enjoys a very complete system of common schools. Among the higher institutions of learning are the Georgia University at Athens, the State Agricultural School, School of Technology, Atlanta; Law School, Athens; Medical School, Augusta; University branches at Dahlonega, Thomasville, Cuthbert and Milledgeville; Emory College, Oxford; Mercer University, Macon; Western Female College, Macon.

Government.—The governor is elected for two years. He must be thirty years of age and must have been a resident of the State for six years. Salary, $5,000. The legislature meets annually and sits for 50 days. Salary of members, $4 per day.

History.—See GEORGIA in vocabulary, *ante.*

Hawaiian Islands.

Area and Population.—The Hawaiian Islands were annexed to the United States July 6, 1898, and organized into a Territory June 14, 1900. They consist of numerous islands in the Pacific Ocean of an area of 6,740 square miles and a population of 154,001.

Topography.—The islands are the summits of the Pacific Mountains rising from a few feet above the sea-level to a height of 14,000 feet. These summits are all volcanic, and two of them are still active.

Climate.—The climate is mild and equable. Snow exists on the highest mountain peaks. Trade winds gently fan the atmosphere for most of the year.

Soil.—In the limited cultivable areas the soil is good and the rainfall copious, especially on the northeastern coasts. Vegetation is luxuriant on the windward side, and less so on the leeward side.

Waters.—There are no rivers of any extent, but many fluctuating mountain streams.

Products.—The islands grow sugar cane in quantities, and all of the semi-tropical fruits and vegetables—coffee, bananas, cocoanuts, mangoes, figs, oranges, berries, potatoes, melons, etc.

Cities.—Honolulu, on the island of Oahu, with an excellent harbor, is the chief city. It is modernly equipped and enjoys an extensive commerce. Population, 39,806. Hilo, on Hawaii Island, is centre of a coffee producing district; population, 19,785. Warluku, on Maui Island, is centre of a sugar region; population, 6,988. Lihue, on Kauai Island, is the seaport of the island.

Education.—The islands have a compulsory school law, and English only is taught. Oahu has a college and theological seminary for natives. There is a high school for boys and girls.

Government.—The government is that of a Territory—an appointive governor and an elective legislature, composed of two houses. The judiciary is composed of a superior court of three judges, a circuit court and such inferior courts as the legislature may enact.

History.—See HAWAII in vocabulary, *ante.*

Idaho.

Area and Population.—Idaho has an extreme length of 490 miles, and a breadth of 305 miles. Total area, 84,800 square miles. Population (1900) 161,772.

Topography.—The State is very mountainous, and there are many elevated peaks, that of Hindman rising to a height of over 12,000 feet. In the north the mountains are generally forest-clad, and between them are park-like valleys adapted for agriculture. In the central region are mountains, with valleys of large scope, well fitted for farming and grazing. In the southern portion the Sierras are not so rugged, and there are fine farming and grazing lands.

Climate.—Climate varies greatly according to altitude and the contour of the country. Mountains are generally snow-covered, while the valleys enjoy an equable climate, dry and healthful. The summers are long and malaria is unknown. It is an inviting climate for invalids.

Soil.—Valley soils are, as a rule, very productive of the cereals and grasses. Where soils are less arable, they are made to produce excellent crops by irrigation.

Waters.—Idaho is a well-watered State. It furnishes many of the tributaries of the Columbia River. Among the largest are Clarke River in the north and Snake River, partially navigable. Pend d'Oreille Lake is a fine sheet of water and accommodates steamers. There are many picturesque cataracts and cañons.

Products.—There have been developed in Idaho mines of the precious metals of great riches. Lead, copper, mica, limestone, coal, granite and salt are found in abundance. The timber regions of the north furnish lumber. Manufacturing is limited. Grazing is a prominent industry, and thousands of head of stock survive all winter and grow fat on the bunch grass. All the cereals grow abundantly in the valleys.

Cities.—Boise City is the capital. It is on Boise River, and is a centre of a rich gold-bearing section. Population (1900) 5,957. Lewiston is at the head of navigation on Snake River. It is the seat of Wilbur College, and enjoys considerable trade. Smaller towns are Blackfoot, Bingham, Hailey, Malade, Moscow, Paris, Pocatello, Silver City, Wardner, Weiser.

Education.—Ample provision is made for a common school system by the setting apart of lands and taxation, and schools flourish. The State University is at Moscow and the Wilbur College at Lewiston.

Government.—The governor is elected for two years. Salary, $5,000. The legislature meets biennially and sits for 60 days. Salary of legislators, $5 per day.

History.—See IDAHO in vocabulary, *ante.*

Illinois.

Area and Population.—Illinois has an extreme length of 380 miles and a breadth of 205 miles. Total area, 56,650 square miles. Population (1900) 4,821,550.

Topography.—Its general features are those of a prairie level, with here and there elevations that serve to relieve the monotony, but none to exceed 1,000 feet. In the southern part is a connected ridge, adjacent to which the land is more rolling than in other parts.

Climate.—Where the prairie land lies high the climate, which in general is that of the temperate zone, is healthful. In lower lying and damp sections it is malarial. Winters are never very severe, and the summers are tempered by prairie circulation.

Soil.—The soil in all the northern sections of the State is rich. While not poor in the southern portion, it is not so responsive except under intensive tillage. Though a prairie country, Illinois is by no means an unwooded country, and forests are increasing.

Waters.—The Mississippi River bounds the State on the west. The Ohio and Wabash form its southern and southeastern boundaries. The Illinois River flows through the State and is navigable. The rivers are generally sluggish. Among those of smaller volume are the Kaskaskia, Vermilion, Rock, Sangamon, Saline, Embarrass, Little

Wabash, Big Muddy, Big Vermilion, Fox. Numerous lakes exist in the northeastern part of the State, some of which are summer resorts.

Products. — Extensive manufactures exist, among the principal of which are farm implements, distilling. Mineral products are coal, lead, iron ore, copper, limestone, marble. The rich soil produces all the cereals in great quantities. Cattle of all kinds are raised, and grazing and dairy farming are carried on extensively.

Cities.—The metropolis of the State is Chicago, on Lake Michigan. Population (1900) 1,698,575, being the second city in population in the country. It is an important grain and lumber market, and the leading live stock and meat-packing market of the world. In commerce it is exceeded only by New York. It is affluent and progressive. Springfield is the capital of the State. It is the centre of an agricultural and coal-producing region. Population 34,159. Peoria, on the Illinois River, has considerable commerce. Population 56,100. Among the other cities are Quincy, population 36,252; Rockford, population 31,051; Bloomington, 23,286; Aurora, 24,147; Joliet, 29,353; Alton, 14,210; Galena, 5,005; East St. Louis, 29,655; Cairo, 12,566; Decatur, 20,754; Moline, 17,248.

Education.—Illinois has an efficient common school system, with State, county and city superintendents. Free schools must be maintained in each district for five months in each year. There is a large permanent school fund. Among institutions of a higher grade, which are numerous, are the Chicago University, Northwestern University, Evanston; State Normal University, Shurtleff College, Illinois College, Knox College.

Government.—The governor is elected for a term of four years. Salary, $6,000. State Senators are elected for four and representatives for two years. Sessions of the legislature are biennial and sessions are without limit. Salary of members, $1,000 per session.

History.—See ILLINOIS in vocabulary, *ante*.

Indiana.

Area and Population.—Indiana has an extreme length of 265 miles and a breadth of 160 miles. Total area, 36,350 square miles. Population (1900) 2,516,462.

Topography.—The surface is generally level, there being no mountains. The highest elevation does not exceed a few hundred feet. The lowest portion of the State is reached at the mouth of the Wabash River. In the more northern portions the ground is flat and somewhat marshy.

Climate.—The climate is that of the temperate zone, somewhat severe in winter and moderately warm in summer, though subject to hot spells. In the flat and swampy sections it is malarial, in others healthful.

Soil.—The soil is fertile and under general cultivation. It produces all the cereals in abundance, and the fruits and vegetables in satisfactory quantities.

Waters.—The Wabash is the principal river. It is navigable at certain seasons as far as Terre Haute. The Wabash and Erie Canal opens communication from Toledo to the lake. White River is a tributary of the Wabash. The Kankakee River is a sluggish stream which empties into the Illinois. Among the other rivers are the Maumee, Iroquois, St. Joseph's. The Ohio skirts the State on the south. There are numerous small lakes. Lake Michigan borders the State on the north.

Products.—Agriculture is a leading industry, and the State is prolific of the cereals. Pork and beef are produced in great quantities. Dairy farming is carried on extensively. Manufactures are extensive and varied. Among the chief mineral products are coal, iron ore and building stone.

Cities.—The capital is Indianapolis, on White River. It is adorned by the capitol and many public buildings, and is a prosperous centre of extensive manufactures and trade. Population 169,164. Fort Wayne, on the Maumee, is a railroad centre in the midst of a rich agricultural region. Population 45,115. Evansville, on the Ohio, is a manufacturing city. Population 19,259. Terre Haute, on the Wabash, enjoys a large trade with the coal and iron fields which are adjacent. Population 36,673. Other principal cities are New Albany, population 20,528; Lafayette, population 18,118; South Bend, population 35,999; Logansport, population 16,204; Kokomo, population 10,609.

Education.—Indiana has a permanent school fund of $10,000,000, and the schools are well supported and flourishing. The school age is from six to twenty-one years. The control of schools is vested in a board consisting of the governor, county and district superintendents and the president of the State University. Among the higher educational institutions are the State Normal Schools at Terre Haute, Covington and Indianapolis; Indiana University at Lafayette, University of Notre Dame, Asbury University, Wabash College, Franklin College, Hanover College, and others, which, with academies and seminaries, are liberally distributed through the State.

Government.—The governor is elected for four years. Salary $8,000. The legislature meets biennially and sits for 60 days. Salary of members, $6 per day.

History.—See INDIANA in vocabulary, *ante*.

Indian Territory.

Area and Population.—Indian Territory has an extreme length of 210 miles, and a breadth of 210 miles. Total area, 31,400 square miles. Population (1900) 392,060.

Topography.—Its surface is that of a great rolling prairie, gradually sloping toward the southeast. It is well watered and timbered. Some spurs of the Ozark and Wichita Mountains rise to the height of 2,000 feet or more.

Climate.—The climate is a modification of that of the temperate zone. Winters are neither lengthy nor severe. The summers are long and hot. In general, there is abundant rainfall, and a healthy climatic condition.

Soil.—The soil is, in general, fertile. Vast areas are susceptible of cultivation, and yield the cereals and grasses in abundance. Cotton can also be grown in favorable sections.

Waters.—The Arkansas River traverses the Territory from northwest to southeast, and enters Arkansas. It is navigable to Port Gibson at certain seasons. Its tributaries in the Territory are the Canadian, Cimarron, Neosho, Verdigris and Illinois. The southern boundary is the Red River. It receives the Washita and Kiamichi and is navigable for the greater part of the year.

Products.—Grazing is a profitable industry, but the chief occupation is farming, the farm products consisting of wheat, corn, rye, oats, cotton, vegetables of all kinds. Much game is killed and shipped.

Cities.—The incorporated town of Ardmore, in the Chickasaw country, has a population of 5,681. Smaller towns are Chickasha, Coalgate, Durant, Hartshorn, Muscogee, Purcell, Vinita, Wagoner.

Education.—The common school system is diversified to suit the customs and regulations of the different tribes. Industrial and day schools are supported. There is a university at Bacone and a college at Muscogee.

Government.—While the United States courts have jurisdiction in the Territory, the respective Indian tribes govern themselves with their own chiefs. United States agents are stationed among the tribes to see that all national regulations are observed.

History.—See INDIAN TERRITORY in vocabulary, *ante*.

Iowa.

Area and Population.—Iowa has an extreme length of 300 miles, and a width of 210 miles. Total area, 56,025 square miles. Population (1900) 2,231,853.

Topography.—The surface has the general prairie features, level and gently rolling, except where, in the northeast, they become hilly and rocky. There are no eminences that reach the dignity of mountains.

Climate.—The climate is that of the temperate zone, as modified by situation. Summers are hot, but relieved by breezes from the north and northwest. The winters are somewhat severe owing to severe northerly winds. The mid-seasons are temperate and the atmosphere rare. Malaria is unknown. Many invalids seek the climate for health.

Soil.—The soil of Iowa is very fertile and productive of all the cereals and grasses. Uncultivated areas of great extent are exceptional, and natural productivity is increased by agricultural skill and industry.

Waters.—The Mississippi bounds it on the east and the Missouri on the west, both navigable. The Des Moines, with its many tributaries, drains the central part of the State. The Iowa River and its tributaries water a large section. The above, with the Skunk and Wapsipinicon, are affluents of the Mississippi. The Big and Little Sioux, Royer's and Nishmabotna flow into the Missouri. Numerous lakes exist in the State.

Products.—The leading products are the cereals, the State being distinctively agricultural. It is productive also of fruits and vegetables. In the prairie and blue-grass sections much hay is grown. Dairy products, hogs, poultry, eggs, etc., are a source of much profit. There are numerous manufactories, producing farm implements, lumber, flour, etc. Meat-packing is an extensive industry. The mineral products are coal, iron ore, lead, gypsum, clay, limestone, marble, sandstone, etc.

Cities.—Des Moines, on the Des Moines River, is the State capital. It is the centre of a rich agricultural and coal-mining section, and has many manufactures and much trade. Population (1900) 62,139. Davenport, on the Mississippi, has a large river trade. Population 35,254. Sioux City, on the Missouri, is an important railroad and trade centre. Population 33,111. Dubuque, on the Mississippi, is centre of the lead region, and of a large grain and lumber trade. Population 36,297. Burlington, on the Mississippi, is a manufacturing city. Population 23,201. Council Bluffs is a trading city. Population 25,802. Other cities are Cedar

Rapids, population 25,656; Iowa City, population 7,987; Keokuk, population 14,641; Atlantic, population 5,046; Boone, population 8,880; Cedar Falls, population 5,319; Clinton, population 22,698; Fort Madison, population 9,278; Marshaltown, population 11,544; Mason City, population 6,746; Ottumwa, population 18,197.

Education.—The educational standard is high. The common school system is liberally supported, and as much as $9,000,000 annually expended in its behalf. Among the higher institutions of learning are the State University, State Agricultural College, State Normal, at Cedar Falls; School for Blind, at Vinton; Deaf and Dumb School, at Council Bluffs; and perhaps a score of excellent colleges of denominational turn. There are also many private and charitable institutions of learning.

Government.—The governor is elected for two years. Salary $5,000. The legislature meets biennially. There is no limit to the length of the session. Members receive $550 per term.

History.—See Iowa in vocabulary, *ante.*

Kansas.

Area and Population.—Kansas has an extreme length of 400 miles, and a breadth of 200 miles. Total area, 82,080 square miles. Population 1,470,495.

Topography.—Kansas is the geographic centre of the United States. The general trend of the surface is toward the southeast, the westward or higher portions being rolling and sometimes broken, but not rising into mountainous elevations of any great magnitude. Many streams are rendered picturesque by bold bluffs.

Climate.—The temperature is that of the temperate zone. Winters are cold, windy, and dry. Summers are warm, but not oppressive, owing to the rarity of the air. Rainfall is copious, but somewhat irregular. There is freedom from malaria, and the air of the State is sought for by invalids.

Soil.—Upland soils are loamy clay, and very fertile. Valley soils are of a sandier complexion and even more fertile than the upland soils. Nearly all the surface is arable and productive of the cereals, grasses, fruits and vegetables. Some of the valleys in the eastern portion are fairly forested with ash, elm, cottonwood, maples and walnuts.

Waters.—The Missouri River skirts the northeastern boundary of the State, and gives a navigable fringe of 150 miles. The Kansas River and its system of affluents drains into the Missouri at Kansas City. The Smoky Hill, Saline, Republican, Big and Little Blue, Grasshopper and Wakarusa, drain into the Kansas. The Arkansas winds through Kansas, and receives the Salt Fork. The Osage, Neosho, Cottonwood and Verdegris drain east and southeast Kansas, and the Cimarron the southwest. Kansas rivers are not navigable, but in some places furnish water-power and irrigation. There are no lakes of moment.

Products.—Agriculture is the leading industry. All the cereals are raised in enormous quantities. Cotton and tobacco, the vegetables, fruits, grasses and root-crops are produced in profitable quantities. Cattle-raising is a large industry. Mineral products are undergoing considerable development, as are the manufactures.

Cities.—Topeka, on the Kansas River, is the capital, and an important railroad centre. It contains the State buildings, and enjoys large manufacturing and trade interests. Population (1900) 51,418. Leavenworth, on the Missouri, centres manufacturing, grain and cattle interests. Population 20,735. Atchison, on the Missouri, was settled in 1843. It is a railway centre and enjoys a large manufacturing trade. Population 15,722. Wichita is on the Arkansas River. It has had a rapid growth, and enjoys large commercial and industrial interests. Population 24,671. Lawrence, on both sides of the Kansas River, was founded in 1854. It has abundant water power, and centres wide mercantile, manufacturing and agricultural interests. Population 10,852. Kansas City is on the Missouri, opposite Kansas City, Mo., with which it is connected by bridges. It was formerly known as Wyandotte. While it is largely engaged in manufactures, it is a great centre of the slaughtering and packing business. Population 51,418. Emporia is between the Neosho and Cottonwood Rivers a few miles above their junction. Its interests are largely mercantile and agricultural. Population 8,223. Other cities of more or less importance are: Fort Scott, population 10,322; Argentine, population 5,878; Ottawa, population 6,934; Galena, population 10,156; Hutchinson, population 9,379; Iola, population 5,791; Newton, population 6,208; Pittsburg, population 10,112; and Salina, population 6,074.

Education.—Kansas has a well-organized and ably-conducted common school system, the annual expenditure for which exceeds $4,000,000. There are numerous higher institutions of learning, among which are four State schools, a State University at Lawrence, an agricultural college, Washington College, at Topeka; Ottawa University, Fairmount College, at Wichita; Baker University, at Baldwin; Wesleyan University, St. Benedict's College, Emporia College, Campbell University, Bethany College, St. Mary's College, Southwest College.

Government.—The governor is elected for two years. Salary $3,000. The legislature sits biennially and the session lasts for 50 days. Salary of members $3 per day.

History.—See KANSAS in vocabulary, *ante.*

Kentucky.

Area and Population.—Kentucky has a length of 350 miles and a breadth of 175 miles. Total area 40,400 square miles. Population 2,147,174.

Topography.—The Cumberland Mountains separate the State from Virginia. The eastern section is much broken and mountainous. Westward comes the rolling blue-grass section, and westward still a rolling section not so fertile. The extreme western part of the State is a bluffy region, which, in the southwest part, becomes a system of swamps.

Climate.—The climate is diversified owing to variety of topography. On the average it passes as mild, and is very healthful. The heaviest rainfalls are in winter and spring.

Soil.—The soil is in general fertile, that of the "Blue-Grass Region" being particularly so. Even in the sections of thin soil, it is readily rendered prolific by proper cultivation. In forest sections it is productive of fine timber, as oak, elm, ash, hickory, walnut, poplar, beech and cedar.

Waters.—The Ohio River forms the northern border of Kentucky, and the Mississippi skirts it for a short distance on the southwest. The Tennessee River enters the State from Tennessee and empties into the Ohio at Paducah. It is navigable. The Cumberland also enters the State from Tennessee, and empties into the Ohio about 10 miles above the mouth of the Tennessee. It also is navigable. The Kentucky River rises in the Cumberland Mountains, and after a course in the State of some 200 miles empties into the Ohio. Other rivers, some navigable and some not, are the Big Sandy, Licking, Green, Salt. Kentucky is an exceedingly well-watered State. Mineral springs are numerous. Echo River in Mammoth Cave is a phenomenal stream.

Products.—The agricultural products are the cereals, tobacco, hemp, hay. Much lumber is produced from the fine timber. The manufactures embrace iron, flour, agricultural implements, liquors. There are productive coal-fields, and petroleum, lead, nitre and salt are found.

Cities.—Louisville, on the Ohio River, is the chief city of the State. It was incorporated in 1828. It is a large manufacturing, pork-packing, and shipping centre, and is beautified by many public institutions. Population (1900) 204,731. Frankfort, the State capital, is on the Kentucky River, amid picturesque surroundings. It contains the capitol and other public buildings. Population 9,487. Other cities and towns of more or less importance are Covington, on the Licking River, population 42,938; Newport, opposite Cincinnati, population 28,301; Lexington, on a branch of the Elkhorn, population 26,369; Ashland, population 6,800; Bowling Green, population 8,226; Danville, Georgetown, Henderson, Hopkinsville, Mayfield, Paducah, on the Ohio, population 19,445.

Education.—Common schools are under a State Board of Education, and a State and district superintendents. The annual school expenditure approximates $3,000,000. Higher institutions of learning are the University of Kentucky, at Lexington; Berea College, at Berea; Bethel College, at Russelville; Military Institute, at Frankfort; Wesleyan College, at Winchester; Centre College, at Danville; Central University, at Richmond; Georgetown, South Kentucky, and St. Mary's Colleges, besides several medical colleges.

Government.—The governor is elected for a term of four years. Salary $6,000. The legislature sits biennially and for a term of sixty days. Salary of members $5 per diem.

History.—See KENTUCKY in vocabulary, *ante.*

Louisiana.

Area and Population.—Louisiana has an extreme length of 280 miles and a breadth of 275 miles. Total area, 48,720 square miles. Population (1900) 1,381,625.

Topography.—The surface of the State is, in general, low, the highest point not being over 362 feet above tide-water. The delta of the Mississippi is swampy and subject to overflows. Indeed, parts of the State contiguous to this river are below its surface, and are protected by levees. In the southwestern portion are extensive grassy plains, which are called "trembling," because supposed to be supported by underlying waters. It has a very extensive, irregular and swampy coastline.

Climate.—The climate is such as to favor soil products, but is not healthful for those unused to it, the summers being long and trying. Summer and spring are periods of the greatest rainfall. In the swampy sections malaria abounds.

Soil.—The soil is, for the most part, alluvial and fertile, growing cotton, sugar cane and other semi-tropical products in great plenty. Rice grows in the swampy sections, and a wealth of pine forests is supported.

Waters.—The main stream is the Mississippi, navigable for vessels of the largest size, in those channels which have been deepened by jetties. The Red River traverses the State from the northwest and enters the Mississippi. It is navigable to Shreveport. The Ouachita (Washita) is navigable to Camden, Ark. The Sabine is a boundary between Louisiana and Texas and is navigable. Pearl River forms the eastern boundary of the State. The Tensas is a navigable tributary of the Ouachita. Lakes and lagoons abound.

Products.—Sugar cane, cotton and rice are the leading soil products, though corn grows well. Extensive pasturages favor cattle-raising. The forests produce lumber, tar and turpentine. The State is not rich in minerals, except salt. Considerable manufacturing is done, the annual product exceeding in value $125,000,000.

Cities.—New Orleans, on the Mississippi, is the metropolis. It is one of the leading cotton markets of the world. Population (1900) 287,104. Baton Rouge, on the Mississippi, is the State capital. It contains the State buildings. Population 14,269. Shreveport, on the Red River, is a manufacturing and shipping point. Population 16,013. Other cities and towns of more or less importance are Alexandria, population 5,648; Crowley, Franklin, Lake Charles, Morgan City, Natchitoches, Opelousas, Plaquemine.

Education.—The common school system is under a State board of education supported by a State and parish superintendents. There is a landed public school fund. Colored children are educated separately. Among the higher institutions of note are Tulane University, New Orleans University, Leland University, State College of Agriculture, and many denominational colleges.

Government.—The governor is elected for four years. Salary $5,000. The legislature sits biennially and for sixty days. Salary of members $5 per day.

History.—See LOUISIANA in vocabulary, *ante.*

Maine.

Area and Population.—Maine has an extreme length of 235 miles and a breadth of 205 miles. Total area, 33,040 square miles. Population (1900) 694,466.

Topography.—The surface of the State is considerably elevated in the centre by a continuation of the White Mountain system. The highest peak, Mt. Katahdin, rises to a height of 5,200 feet. On the north side of this mountainous, broken section, the surface slopes off to the St. John River, and on the south side toward the Atlantic coast. The coast line is some 260 miles long and abounds in inlets, bays and harbors. Many important islands lie contiguous.

Climate.—The climate is severe as to cold. Winters are long and summers short, but warm. It is very healthful all the year round.

Soil.—The soil is thin, but some of the valleys are quite productive under careful tillage. The more rugged parts support fine forest growths, such as pine, spruce, hemlock, maple, birch, ash and beach.

Waters.—The State is abundantly watered. The Penobscot flows through the centre of the State, and is navigable to Bangor. The Kennebec and Androscoggin afford fine water power. The St. Croix forms the boundary between Maine and Canada, and the Piscataqua is a partial boundary between the State and New Hampshire. The Aroostook and Walloostook empty into the St. John. The largest lake is Moosehead, 35 miles long. The other lakes of smaller dimensions are almost innumerable and many of their names unpronounceable except by an inhabitant.

Products.—The cereals are produced in moderate quantities; hay and potatoes more bountifully. Dairy farming is carried on profitably, as is sheep-raising. The leading industry is the production of lumber, to which was formerly added shipbuilding. Ice packing, the fisheries, and manufacturing, engage considerable labor and capital. Among the leading mineral products are a superior granite and marble, and excellent limestone and slate.

Cities.—Augusta is the capital, on the Kennebec. It has fine water power and extensive manufactures. Population 11,683. Portland, on an arm of Casco Bay, has a fine harbor, and many imposing structures. Population 50,145. Lewiston is a manufacturing city, population 23,761. Other places of greater or less importance are Auburn, population 12,951; Bangor, a commercial city, population 21,850; Biddeford, a commercial town, population 16,145; Brunswick, population 5,210; Calais, population 7,655; Eastport, population 5,311; Gardiner, Old Town, South Portland, Waterville and Westbrook.

Education.—The school system is under a State superintendent. The State appropriates over $1,500,000 annually for schools. The school age is from four years to twenty-one. The entire system is vigorously conducted. Among the higher institutions are Bowdoin College, two medical schools, Colby University, Bates College, State Agricultural, industrial and reform schools, and several normal schools.

Government.—The governor is elected for two years. Salary $2,000. The legislature meets biennially. No limit to the length of the session. Salary of members, $150 per annum.

History.—See MAINE in vocabulary, *ante.*

Maryland.

Area and Population.—Maryland has an extreme length of 200 miles and a width of 120 miles. Total area, 12,210 square miles. Population (1900) 1,188,044.

Topography.—The leading topographic features embrace an elevated western section traversed by the Alleghanies and their spurs, and a lower section along the rivers and the sea approaches. Chesapeake Bay divides it into two unequal portions called the Eastern and Western Shores.

Climate.—The climate of the Eastern portion is that of the temperate zone modified by the ocean, the extreme lowlands being malarial. The climate of the western and higher portion is that of the temperate zone.

Soil.—The low, sandy and alluvial soils of the eastern portion are productive of fruits and vegetables. The rolling portion between the Potomac and Susquehanna is, in general, fertile, and productive of the cereals. The soil of the mountainous northwest portion is thin, except in the valleys.

Waters.—The Potomac, on the western and southern borders, is navigable as far as Washington, but beyond, as at Harper's Ferry, it becomes rocky and impetuous. The Susquehanna enters the northeastern portion of the State and empties into Chesapeake Bay. The Patuxent is navigable, as is the Patapsco. The chief water is Chesapeake Bay and a small stretch of ocean, the former piercing and dividing the State into its two geographic parts.

Products.—The State produces the cereals, superior fruits and vegetables, and a fine quality of tobacco. Manufacturing is carried on extensively, especially in the vicinity of Baltimore. Oysters, fish and canned fruit industries are large and profitable. Coal, iron, copper and building stones are found extensively in the mountainous portions, and chrome in some places.

Cities.—Baltimore, on the Patapsco, is the chief city. It is both metropolis and seaport. It is noted for its many fine monuments, and is largely engaged in manufactures, exports and railway traffic. Population (1900) 508,957. Annapolis is the State capitol, on the Severn River. It is the site of the United States Naval Academy. Population 8,525. Frederick is in the centre of a rich agricultural region, population 9,296. Other towns of more or less importance are Cambridge, population 5,747; Chestertown, Crisfield, Cumberland, a trading town on the Potomac, population 17,128; Hagerstown, a manufacturing centre, population 13,591; Easton, a canning centre; Havre de Grace, on Chesapeake Bay; Salisbury, Westminster, Rising Sun and Elkton.

Education.—The common school system is presided over by State, county and local boards. The races are educated separately. Among the higher institutions are the State Normal School, Baltimore; Baltimore City College, Johns Hopkins University, at Baltimore; Maryland Institute, State Agricultural College, United States Naval Academy, at Annapolis; Tome Institute, at Port Deposit; Peabody Institute and many sectarian institutions of a high order.

Government.—The governor is elected for four years. Salary $4,500. The legislature sits biennially. Term limited to ninety days. Salary of legislators $5 per day. The judiciary consists of a court of appeals, circuit courts, orphans' courts and municipal and justices of peace courts, with different lengths of terms and salaries.

History.—See MARYLAND in vocabulary, *ante.*

Massachusetts.

Area and Population.—Massachusetts has an extreme length of 190 miles and a breadth of 110 miles. Total area, 8,315 square miles. Population (1900) 2,805,346.

Topography.—In its western section the State is somewhat mountainous. The central portion is quite rolling. The eastern section is somewhat low and sandy. Mt. Greylock, the highest point in the State, rises to a height of 3,500 feet.

Climate.—Owing to the prevalence of east winds the winters of Massachusetts are severe. The summers are short and sometimes quite hot. There are many favorite coast resorts in the State. The rainfall is copious. There is a tendency in the lower and more exposed parts to malarial and pulmonary diseases.

Soil.—The soil is not fertile except in some of the valleys, yet half the area is under cultivation, and rendered productive by careful farming.

Waters.—The State is well-watered and abounds in water power, which is carefully utilized. None of the rivers are large or lengthy, and they have, in general, a southern trend. The Connecticut flows southward through the west central part of the State; the Housatonic waters the western portions; the Farmington flows into the Connecticut near Hartford, as does the Westfield; smaller streams are the Chicopee, Swift, Fort, Ware, Nashua, Charles, Taunton, most of them furnishing water power. Small lakes, of the grade of "pools," abound. The seacoast is a dangerous one, yet there are some good harbors and many resorts. There are many islands off the coast.

Products.—Among the agricultural products are the cereals, hay, the vegetables, tobacco, dairy products, wool. The manufactures are numerous and exhaustive of the various classes, the State ranking as third in this respect. The fisheries are numerous and profitable. Timber products are no longer profitable. Mineral products are granite, marble, limestone, iron, copper, coal. The State has a large foreign and domestic commerce.

Cities.—Boston, on an inlet of Massachusetts Bay, is the capital and metropolis of the State. It is richly endowed with historic buildings and institutions, enjoys a large commerce and is the seat of important manufactures. It excels in libraries and learned institutions, and ranks as the most cultivated city in the country. Population 560,892. Lowell, on the Merrimac, has extensive manufactories. Population 94,969. Springfield, the former capital, is a manufacturing city on Mill River. Population 62,059. Cambridge, near Boston, is the seat of Harvard University. Population 91,886. Fall River, on the river of the same name, is an important manufacturing centre. Population 104,863. Lynn, near Boston, is the great boot and shoe centre. Population 68,513. Lawrence, on the Merrimac, is a manufacturing place. Population 62,559. New Bedford, on Buzzard's Bay, is a manufacturing town and centre of a large fishing industry. Population 62,445. Worcester, on the Blackstone River, has large manufactures and several higher institutions of learning. Population 118,421. Salem is a port of entry, and noted for its charitable institutions. Population 35,956. Other important cities and towns are Brockton, population 40,063; Chelsea, population 34,072; Fitchburg, population 31,531; Holyoke, population 45,712; Malden, population 33,664; Newton, population 33,587; Somerville, population 61,643; Taunton, population 31,036; Chicopee, population 19,167; Everett, population 24,336; Gloucester, population 26,121; Medford, population 18,244; Newburyport, population 14,478; North Adams, population 24,200; Northampton, population 18,643; Pittsfield, population 21,766; Quincy, population 23,899; Waltham, population 23,481. Most of these cities are largely engaged in manufactures.

Education.—The school system is administered by a State school board, which has brought the system to great perfection. It expends about $14,000,000 annually for school purposes. Attendance is compulsory. Among the higher institutions of learning are Harvard University, at Cambridge, the oldest institution of the kind in the country; Amherst College, at Amherst; Williams' College, Mt. Holyoke College, Tuft's College, Boston College, Clark and Boston Universities; a State agricultural college and numerous normal schools; Institute of Technology, several female and denominational colleges. There are numerous libraries of high rank, and many charitable schools.

Government.—The governor is elected for one year. Salary $8,000. The legislature sits annually and there is no limit to the end of the session. Salary of members $750 per annum. The judiciary consists of a supreme and superior court, whose members are appointive by the governor. There are minor courts of limited jurisdiction.

History.—See MASSACHUSETTS in vocabulary, *ante*.

Michigan.

Area and Population.—Michigan has an extreme length of 400 miles and a breadth of 310 miles. Total area, 58,915 square miles. Population (1900) 2,420,982.

Topography.—The State consists of a northern peninsula between Lake Superior and Lake Michigan, and a southern peninsula between Lake Michigan and Lakes Huron, St. Clair and Erie. The first is rugged and somewhat mountainous, the second is a rolling plain, susceptible of culture.

Climate.—Owing to location and water modifications the climate is variable. Winters are cold and summers warm, though the night atmosphere is much modified by breezes. All in all, the climate is very healthy. Rainfall is moderate.

Soil.—The soil of the upper or northern peninsula is not naturally fertile; that of the lower or southern is quite fertile and well adapted for agricultural and fruit-raising purposes. Extensive forests grow in certain portions, and lumber is extensively produced.

Waters.—Besides its 1,600 miles of lake shore, the State is extensively watered by the Detroit River, connecting Lakes St. Clair and Erie; Mackinac Straits, which separate the two peninsulas; the passages of the Sault Ste. Marie; the Muskegon, emptying into Lake Michigan; Grand River, emptying into Lake Michigan; the St. Joseph's, Cheboygan, Thunder Bay River, Manistee, Saginaw, Huron, Au Sable, Taquamenon, Manistique, Escanaba, Ford, Menominee, Sturgeon, Ontonagon. Lakes abound and there are many mineral springs.

Products.—The cereals, vegetables and fruits are produced in large quantities, as are dairy products. There are numerous manufactories of leather, lumber, farming implements and furniture. The mineral products are copper and iron ores in great quantities and of superior quality, coal, petroleum, salt, and some minor minerals.

Cities.—The principal city is Detroit, on the river of the same name. It is a manufacturing and commercial city. Population 285,704. Lansing, at the meeting of Grand and Cedar Rivers, is the capital of the State. Population 16,485. Grand Rapids, on Grand River, enjoys fine water power, and is a manufacturing centre. Population 87,565. Other important places are Jackson, population 25,180; Muskegon, population 20,811; Kalamazoo, population 24,104; Port Huron, population 12,158; Battle Creek, population 18,563; Adrian, population 9,654; Flint, population 13,103; Ann Arbor, population 14,509; Bay City, population 27,628; Saginaw, population 42,345; Alpena, population 11,802; Ishpeming, population 13,255; Manistee, population 14,260; Marquette, population 10,058; Menominee, population 12,818; Sault Ste. Marie, population 10,588; West Bay, population 13,119.

Education.—The common school system is liberally endowed by landed sections, and approximately $7,000,000 are spent annually for school purposes. The school age is from five to twenty years of age. Among the higher institutions of learning are State normal schools at Ypsilanti and Leoni, a State agricultural college, the University of Michigan, at Ann Arbor; Oliver College, Adrian, Detroit, Hillsdale, Albion, Battle Creek and Kalamazoo Colleges. There are several professional and charitable schools.

Government.—The governor is elected for two years. Salary $4,000. The legislature meets biennially and there is no limit to the length of the session. Salary of members $3 per day. Judges are elective and for fixed terms.

History.—See MICHIGAN in vocabulary, *ante.*

Minnesota.

Area and Population.—Minnesota has an extreme length of 400 miles and a breadth of 350 miles. Total area, 83,365 square miles. Population (1900) 1,751,394.

Topography.—The State consists of a rolling plain, and it is the crest of the lower plains of the continent. In the southern section the drainage system is southerly to the Gulf of Mexico, and in the northern it is northerly into Hudson Bay. Marshes and low sand-hills characterize the northeastern section. The highest elevation in the State does not exceed 2,400 feet.

Soil.—The southern part of the State is a fertile prairie. The other half is of thinner and more varied soil, yet productive under careful tillage, except in the marshy sections.

Climate.—Winters are cold and dry, with slight snowfalls. Summers are warm, but nights cool. Springs and falls are lengthy and pleasant. The summer months, including September, witness the heaviest rainfalls. Owing to the rarity of the atmosphere the State is very healthy and a favorite resort for consumptives.

Waters.—The State is well watered. The Mississippi, the chief stream, is navigable throughout its course in the State. It receives the Minnesota River, Cannon, Zumbrota, Crow Wing, Willow, St. Croix and Rum. Lake Superior receives several small rivers. Rainy River and the northern lakes receive the Vermillion, Little and Big Forks, and smaller streams. The Red River receives the waters of the Wild Rice, Buffalo, Thief and Roseau Rivers. Lakes are numbered by the thousand, and some are from 25 to 30 miles in length. The more important are Vermillion, Big Stone, Otter Tail, Itasca, Red, Mille Lacs.

Products.—The State produces the cereals in large quantities, and large quantities of flour are manufactured. There are also large manufactories of carriages, farm implements, furniture, etc. While the State is agricultural, minerals abound, and among those found in paying quantities are copper and iron ore, limestone, slate, various clays, granite and other building stones. Lumber is produced from the extensive forests of pine, oak, elm, maple, etc., which are found in the lake regions.

Cities.—The chief city is Minneapolis, on the Mississippi. It enjoys magnificent water power and large manufactures. Population 202,718. St. Paul, on the Mississippi, just below Minneapolis, is the capital of the State. It also is an important manufacturing and shipping city. Population

163,065. Duluth, on Lake Superior, is an important commercial point. Population 52,969. Other cities of more or less commercial and industrial importance are Winona, population 19,714; Stillwater, population 12,318; Mankato, population 10,599; Red Wing, population 7,525; Faribault, population 7,868.

Education.—The common school system is strongly backed up by a permanent fund of $10,000,000, and the annual expenditure for schools exceeds $5,000,000. The system is in excellent condition. The school age is from five to twenty-one years. Among the higher institutions of learning are the State University, at Minneapolis; Hamline University, at St. Paul; St. John's University, Carlton College, Augsberg College, Albert Lea College for Girls, Gustavus Adolphus College, and many normal, private and sectarian institutions.

Government.—The governor is elected for two years. Salary $5,000. The legislature meets biennially, and sits for ninety days. Salary of members, $5 per day. Judges are elected for fixed terms.

History.—See MINNESOTA in vocabulary, *ante.*

Mississippi.

Area and Population.—Mississippi has an extreme length of 340 miles and a breadth of 180 miles. Total area, 46,810 square miles. Population (1900) 1,551,270.

Topography.—The surface is elevated toward the north and undulating. There are general slopes toward the Mississippi River and the Gulf, ending in lowlands and swamps. The coast line of some 90 miles affords no deep harbors.

Climate.—Snow and ice are not much known in the State. Summers are long and hot, winters very mild. The climate of the higher portions is healthful; that of the low and swampy portions is malarial. Rainfall is ample for agricultural purposes.

Soil.—The soil of the elevated portions is good; that of the lowlands is rich alluvium, and very productive, as is that of favorable spots in the swampy sections.

Waters.—The Mississippi borders the State on the west. It is mostly margined by levees. The Tennessee skirts the northeast corner of the State. The Tombigbee flows through the State and enters Alabama. The Big Black, Yazoo, Tallahatchie, Homochitto, Sunflower and Bayou Pierre flow westward and empty into the Mississippi. The Gulf of Mexico receives the Pearl and Pascagoula. Mineral springs are found in the State.

Products.—Among the agricultural products of the State are cotton, corn, rice, sugar, vegetables and many semitropical fruits. Cattle, hogs, horses and mules are extensively raised. Of late years, quite a turn has been taken toward manufacturing, and cotton and cotton-seed mills are being introduced, as are lumber-mills, which find a fine supply of native timber, such as oak, hickory, walnut, gum, beech, sycamore, pine, cypress, etc. Resin and turpentine are also produced. Iron and several other ores are found, as are lignite, limestone, sandstone and plastic clays.

Cities.—Jackson, the capital of the State, is situated on Pearl River. It contains the State buildings, and has a large cotton trade. Population 7,816. Vicksburg, on the Mississippi, is an important shipping point, with manufactories of cotton and cotton-seed oils. Population 14,834. Meridian is a cotton and lumber centre, population 14,050. Natchez, on the Mississippi, is a manufacturing and shipping city; population 12,214. Minor cities and towns are Aberdeen, Biloxi, Canton, Corinth, Greenville, Hattiesburgh and West Point.

Education.—Schools are under control of a State board of education. The races are educated separately. Among the higher institutions of learning are the University of Mississippi, Oxford; Agricultural College, Starkville; two State normal schools; Normal Institute, Iuka; Natchez Seminary, Tongaloo University, Alcorn University, Mississippi College, and several sectarian and eleemosynary institutions.

Government.—The governor is elected for four years. Salary $4,500. The legislature meets biennially, and there is no limit to the length of the session. Salary of members, $460 per year. Judges are appointed by the governor for stated terms.

History.—See MISSISSIPPI in vocabulary, *ante.*

Missouri.

Area and Population.—Missouri has an extreme length of 300 miles and a breadth of 280 miles. Total area, 69,415 square miles. Population (1900) 3,106,665.

Topography.—That portion of the State lying north of the Missouri River is gently undulating, and slopes from northwest to southeast. The portion south of the Missouri is more broken and rugged, frequently rising into elevations of considerable height. In the southeast the chain of

Iron Mountains exists, and in the southwest, the Ozark chain. The approaches to the Mississippi River are low and swampy.

Climate.—The climate is variable. Summers are long and hot, winters short and mild. There is sufficient rainfall. All in all the climate is healthful.

Soil.—The soil of the northern portion is very fertile. That of the southern portion is not so generally productive, especially contiguous to the mountain ranges. Lowland soils are generally rich.

Waters.—The Mississippi River borders the State on the east. The Missouri flows across the State in a southeasterly direction and empties into the Mississippi above St. Louis. Both are navigable throughout the State. Rivers draining into the Mississippi are the St. Francis, Meremee. Des Moines and others. Those draining into the Missouri are the Osage, Gasconade, Chariton, Grand, etc. There are many lakes, lagoons and mineral springs.

Products.—Missouri is a great agricultural State, the products being all the cereals, tobacco, hay, vegetables and fruits. Great numbers of mules and cattle are raised. Dairying and poultry raising are profitable industries. Manufacturing is a growing industry, and embraces iron and steel making, grain and lumber milling, wine making. Among the mineral products are iron ore, coal, lead, sandstone, marble, clays, glass sand, copper, nickel.

Cities.—The metropolis is St. Louis, on the Mississippi. It is an extensive manufacturing and shipping city, and contains many handsome structures. The exposition in honor of the centennial of the Louisiana Purchase was held here in 1904. Population 575,238. Kansas City, on the western border of the State, is a great railroad centre, with large manufacturing, packing, cattle, shipping and other commercial interests. Population 163,752. Jefferson City, on the Missouri, is the capital of the State. It contains the State buildings, and has manufacturing and shipping interests. Population 9,664. St. Joseph, on the Missouri, has industries in packing and manufactures. Population 102,979. Sedalia has important manufactures and is centre of an agricultural country. Population 15,231. Springfield is a manufacturing and mercantile point. Population 23,267. Hannibal, on the Mississippi, is an important railroad centre and shipping point. Population 12,780. Aurora is in a mining region, population 6,191; Clinton is a manufacturing place in the southwest, population 5,061; Columbia is a trade centre, population 5,651; Chillicothe is a trading town, population 6,905; De Soto is centre of a mineral region, population 5,611; Independence has large manufacturing interests, population 6,974; Joplin is a mining town, population 26,023; Kirksville is a manufacturing place, population 5,966; Louisiana City is a shipping point, population 5,131; Mexico is in the midst of an agricultural section, population 5,099; Moberly has large manufactories, population 8,112; Nevada is in a prairie region, population 7,461; St. Charles is centre of a mining section, population 7,982; Trenton is a manufacturing town, population 5,396; Webb City is contiguous to lead mines, population 9,201.

Education.—Missouri has a large permanent school fund, and a liberal sum is spent annually on schools, which are in fine condition. The races are educated separately. School age is from six to twenty years. Schools must be open at least four months in a year. Among the higher institutions of learning are the State Normal Schools, six in number, the State University, College of Agriculture, schools of law, medicine, mining and metallurgy, Lincoln Institute, Washington University and many smaller colleges.

Government.—The governor is elected for four years. Salary, $5,000. The legislature meets biennially and sits for seventy days. Salary of members $5 per day. The judiciary is elective for stated terms.

History.—See MISSOURI in vocabulary, *ante.*

Montana.

Area and Population.—Montana has an extreme length of 580 miles and a breadth of 315 miles. Total area of 146,080 square miles. Population (1900) 243,329.

Topography.—The eastern section of Montana, the largest, is broken into rolling plains; the western section is mountainous, interspersed with valleys and picturesque passes. Some of the loftier peaks rise to a height of 11,000 feet. The Yellowstone region embraces the celebrated "bad lands."

Climate.—Winters are cold, but less severe in their effects than in moister regions. Summers are temperate. The rare, dry atmosphere renders the climate very healthful. The rainfall is light, as is the snowfall, except in the mountains.

Soil.—The plain portions and the valleys are productive, and especially fitted for grazing. The soil of the bad lands is that of a barren clay, from the disinetgration of rocks. Mountain lands are not fertile, except in the valleys.

Waters.—From its geographic situation and topographic outline, Montana becomes the source of many great rivers, finding their way into the Pacific Ocean, Hudson's Bay and Gulf of Mexico. Among these are the Missouri, Yellowstone, Columbia and Saskatchewan. Smaller rivers are the Tongue, Powder, Big Horn, Flathead, Missoula, Big Black, Fort, Bitter Root, Milk, Musselshell. Some of them afford fine water power.

Products.—The agricultural products are wheat, barley, vegetables. Vast areas are devoted to cattle raising, the grasses preserving their fattening properties all the year round. Forests yield an abundance of timber, and the lumber industry is important. Other manufactures are in their infancy. Mining is the leading industry, the products consisting of gold, silver, copper, lead, coal, porphyry, granite, marble, limestone, the clays, quicksilver, zinc and other valuable minerals.

Cities.—Helena is the capital of the State, in Prickly Pear Valley. It is the centre of a rich mining region. Population 10,770. Butte is on Deer Lodge River, and is also the centre of a mining region. Population 30,470. Minor towns are Anaconda, population 9,453; Billings, Deer Lodge, Dillon, Great Falls, population 14,930; Kalispel, Livingston, Miles City, Missoula, Red, Lodge, Walkerville.

Education.—Montana enjoys a good school system, but is hampered in its general application by a sparse population. Among the higher institutions are the University of Montana, Missoula; College of Montana, Deer Lodge, and other institutions for the education of whites and Indians.

Government.—The governor is elected for four years. Salary, $5,000. The legislature meets biennially and sits for sixty days. Salary of members $6 per day. Judges are elective for stated terms.

History.—See MONTANA in vocabulary, *ante.*

Nebraska.

Area and Population.—Nebraska has an extreme length of 415 miles and a breadth of 205 miles. Total area, 77,510 square miles. Population 1,066,300.

Topography.—Its surface is that of an expansive, undulating plain, slightly sloping toward the east. Hills of low elevation border the Missouri River. In the northwest appear characteristics of the "bad lands."

Climate.—Nebraska escapes, for the most part, both the severe winters of the North and the hot winds and seasons of the South. The atmosphere is dry and invigorating. Though rainfall is abundant, it is somewhat irregular, and there are occasional periods of drought.

Soil.—The soil is a rich loam, and nearly all arable, only a small portion in the northwest being barren. It is especially productive of grains and grasses. There are few natural forests.

Waters.—The waters drain principally toward the east or southeast. The rivers are shallow. Chief among them are the Platte, Republican, Niobrara, Loup, Elkhorn, Weeping Water, Little Nemaha.

Products.—The agricultural products are the cereals, grasses, vegetables and fruits. Grazing is an important industry. Sorghum and tobacco are also produced. There are important manufactories such as car-works, flour mills, foundries, smelting works, etc., and manufacturing is growing rapidly. Mineral products are not abundant. There are coal measures, but not workable at a profit.

Cities.—Lincoln, the State capital, is an industrial city and railroad centre. Population 40,169. Omaha, on the Missouri, is a manufacturing, meat packing and shipping city. Population 102,555. Hastings is in the midst of an agricultural district. Population 7,188. Nebraska City is a manufacturing and shipping centre. Population 7,381. Plattsmouth, on the Missouri, has large manufacturing interests. Other cities and towns of more or less importance are Beatrice, population 7,875; Blair, on the Missouri, Columbus, Falls City, Fremont, Grand Island, Holdredge, Kearney, Norfolk.

Education.—The State has a large landed school fund, and the system is in excellent working shape. Schools must be open for at least three months in every year. There are many graded and high schools. Higher institutions of learning are the State University, Lincoln; a State agricultural College, a State Normal School, Creighton College, Doane College, Wesleyan University, Nebraska College and Divinity School, with others of like standing.

Government.—The governor is elected for two years. Salary, $2,500. The legislature meets biennially, and the session is limited to sixty days. Pay of members $500 per annum. Judges are elective and for stated terms.

History.—See NEBRASKA in vocabulary, *ante.*

Nevada.

Area and Population.—Nevada has an extreme length of 485 miles and a breadth of 315 miles.

Total area, 110,700 square miles. Population 42,335.

Topography.—The surface of Nevada is a series of north and south basins. They are separated by mountains, the valleys between being sometimes reduced to the width of cañons. The entire country is elevated and very picturesque. Some of the mountains in the State rise to a height of 10,000 feet, and in the Sierra range on the western border of the State a height of 13,000 feet is reached.

Climate.—Winters in the northern part of the State are cold. In the central and southern parts the temperature is mild. Rainfall is scanty. The atmosphere is healthful.

Soil.—Much of the soil of the State is unproductive, except under irrigation. The valleys, however, are fertile under careful cultivation. They produce natural grassess, valuable for stock raising.

Waters.—The Colorado River forms part of the southeastern boundary. The Humboldt has a course of 300 miles in the State through an east and west valley. Other rivers are the Carson, Walker, Quinns, Truckee. There are numerous mineral springs, cold and hot.

Products.—The agricultural products, which are confined to the valley sections, are spring wheat, oats, barley, potatoes, vegetables, hay, fruits. Cattle are reared on the grazing lands. Manufacturing is limited to lumber products. The chief industry is mining and smelting, the State being particularly rich in gold and silver ores. The earth also yields sulphur, soda, salt, borax, zinc, coal, copper, antimony, cobalt, nickel, iron, gypsum, kaolin, mica, graphite and building stones of great variety.

Cities.—Carson City is the capital. It contains the State buildings and a United States Mint. It has a decreasing population. Virginia City is a mining centre. Here are the Sutro Tunnel and Comstock Lode. Population 2,695. Less important places are Gold Hill, Eureka, Austin, Tuscarora, Reno.

Education.—A State Board of Education controls the public school system. Schools must be open at least four months in a year. There is a State University at Reno, an agricultural college, an orphans' home and some smaller institutions.

Government.—The governor is elected for four years. Salary, $4,000. The legislature sits biennially. Length of session fifty days. Pay of members $8 per day. The judges are elective and for stated terms.

History.—See NEVADA in vocabulary, *ante*.

New Hampshire.

Area and Population.—New Hampshire has an extreme length of 185 miles and a breadth of 90 miles. Total area, 9,305 square miles. Population (1900) 411,588.

Topography.—The surface of New Hampshire rises rapidly from the Atlantic coast to a hilly country, and this again into a rugged mountain region, which for picturesque beauty is called the "Switzerland of America." The White Mountains abound in high peaks, narrow, wild valleys, swift rivers, bold waterfalls and sequestered lakes, all very inviting to tourists.

Climate.—The climate is severe, the winters being long and cold, the summers short and hot. The climate in the southern section is milder. The atmosphere is healthful, but in some sections too damp to be inviting to invalids.

Soil.—The soil is thin in the hilly sections, but productive in the valleys under good cultivation. Mountain soils are barren, yet productive of fairly good timber.

Waters.—The State embraces the head-waters of the Merrimac, Androscoggin and Connecticut Rivers, the latter separating it from Vermont. There are many lakes, the largest being Sunapee, Squam and Winnepsankee.

Products.—The agricultural products are the cereals, hay, vegetables, fruits, wool and dairy outputs. There are important manufactures of cottons, woolens, boots and shoes, leather, paper, furniture, woodenware and machinery. Mineral products are iron ore, graphite, mica, lead, zinc, granite, etc.

Cities.—Concord, on the Merrimac, is the State capital. It contains the State buildings, and is the centre of a large trade. Population 19,632. Manchester, on the Merrimac, has extensive manufactures. Population 56,987. Dover is a manufacturing town. Population 13,207. Nashua has fine water power and extensive manufactures. Population 23,891. Portsmouth, on the Piscataqua, is a seaport, and site of a United States Navy Yard. Population 10,637. Smaller places are Berlin, Claremont, Exeter, Franklin, Keene, Laconia, Lebanon, Rochester, Somersworth.

Education.—An excellent school system exists, and education is compulsory. There are many high schools. Dartmouth College is located at Hanover. It has departments of medicine, engineering and agriculture. There is a State normal school, reform school and orphanage, beside other kindred institutions.

Government.—The governor is elected for two years. Salary, $2,000. The legislature meets biennially and there is no limit to the length of the session. Salary of members $200 per year. The judges are appointive by the governor for stated terms.

History.—See NEW HAMPSHIRE in vocabulary, *ante.*

New Jersey.

Area and Population.—New Jersey has an extreme length of 160 miles, and a breadth of 70 miles. Total area, 7,815 square miles. Population (1900) 1,883,669.

Topography.—In its northern portion, the State is somwhat mountainous, the highest point rising some 1,800 feet. A rolling country occupies the central portion. The eastern and southern portions slope toward the Atlantic coast and finally become sandy levels.

Climate.—In the northern and central parts the climate is that of the temperate zone, and healthful. In nearing the coast the climate is modified by the ocean. There are swampy areas in the lowlands, which are malarial.

Soil.—The soil of the mountainous section is thin, except in the valleys. That of the rolling section is generally fertile. That of the sandy section is thin, but susceptible, under careful tillage, of fine growths of superior vegetables and fruits.

Waters.—Beside an Atlantic coast line of 120 miles, the State is washed by the Hudson on the east, and the Delaware on the west. Within its bounds are the Raritan, Passaic, Hackensack, Navesink, Shrewsbury, Toms, Great Egg Harbor, Maurice and Mullica. There are many small lakes in the northern part. Seacoast resorts abound.

Products.—The agricultural products are the cereals, fruits, vegetables and dairy products. Its vegetables and fruits are surprisingly fine and profitable, owing to the nature of the soil and contiguity to great city markets. Manufactures are extensive, and cover the whole range of such products, silk and pottery ranking among the principal. The mineral products are iron ore, copper ore, marl, etc. Fishery products, especially oysters, are profitable.

Cities.—Trenton, on the Delaware, is the capital. It contains the State buildings and many manufactories. Population 75,307. Jersey City, opposite New York City, is an important railroad and shipping centre. Population 206,433. Newark, on the Passaic, is a manufacturing centre. Population 246,070. Camden, on the Delaware opposite Philadelphia, has important manufacturing, shipping and shipbuilding interests. Population 75,935. Elizabeth is a manufacturing and residential city. Population 52,130. Atlantic City, on the coast, is a favorite watering place and famous summer resort. Population 27,838. Paterson is noted for its silk manufactures. Population 105,171. Hoboken is a suburb of Jersey City. Population 59,364. Bayonne, a southern adjunct of Jersey City, is largely a residential city. Population 32,722. Orange, East and West, are home centres for New York business men. Population 24,141. Passaic has important textile manufactories. Population 27,777. Smaller towns are Bridgeton, population 13,913; Hackensack, population 9,443; Harrison, population 10,596; Kearny, population 10,896; Millville, population 10,583; Montclair, population 13,962; Morristown, population 11,267; New Brunswick, population 20,006; Perth Amboy, population 17,699; Plainfield, population 15,349; Princeton, site of Princeton University; Phillipsburg, on the Delaware opposite Easton, population 10,052; Union, population 15,187.

Education.—New Jersey has an excellent common school system and spends annually some $6,000,000 on her schools. Among the higher institutions of learning are Princeton University, Princeton; Rutgers College, a State agricultural college, Drew Theological Seminary, Stevens Institute of Technology, State Normal School, State Model School, etc.

Government.—The governor is elected for three years. Salary, $10,000. The legislature meets annually and there is no limit to the length of the session. Pay of members $500 per annum. Judges are appointed for stated terms by the governor, subject to the approval of the Senate.

History.—See NEW JERSEY in vocabulary, *ante.*

New Mexico T.

Area and Population.—New Mexico has an extreme length of 390 miles and a breadth of 350 miles. Total area, 122,580 square miles. Population (1900) 195,310.

Topography.—The surface of New Mexico consists of a series of elevated, level plateaus, separated by mountain ranges of considerable height. The principal ranges are Sangre de Cristo and Raton. West of the Rio Grande are continuous ranges rising finally into the heights of the Sierra Madre. The highest peak is Cerro Blanco of 14,300 feet elevation.

Climate.—Summers are hot, and in the elevated parts the winters are cold; but, in general, the air is dry, pure and very inviting to invalids.

Soil.—The plateau soils are very fertile, but owing to light rainfalls agriculture is largely dependent on irrigation. This is particularly true of the great "staked plains," which are both waterless and treeless, yet produce certain grasses which provide some grazing. The highlands are productive of timber.

Waters.—The Rio Grande River flows south through New Mexico in a swift, shallow channel, its volume being subject to great changes from rapid evaporations. The Pecos empties into the Rio Grande. The Canadian River flows into Texas. The Gila, San Juan and Little Colorado are tributaries of the Colorado. Hot springs are numerous, and afford medicinal resorts.

Products.—The agricultural products are the cereals, vegetables and fruits. Sheep and cattle raising are carried on extensively. Meats cure themselves in the dry atmosphere. Manufactures are meagre and limited to flour, quartz and sawmills, and the native production of blankets and pottery. Mining is the chief industry, and gold, copper, lead, gypsum, manganese, sandstone, marble and turquoise are found in paying quantities.

Cities.—Sante Fé, a quaint old Spanish town, is the capital and the main business centre. Population 5,603. Las Vegas is centre of a sheep-raising country. Albuquerque, on the Rio Grande, is a large market for cattle and sheep. Population 6,238. Other places of less importance are Deming, Gallup, Las Cruces, Raton, Roswell, Silver City, Socorro.

Education.—The schools are mixed English and Spanish. While a good school system exists, education, both lower and higher, is dominated by the Catholic Church. It has several private schools and colleges.

Government.—The territorial government is of the usual form, an appointive governor and judiciary and an elective legislature. The governor is appointed by the President of the United States for four years and receives a salary of $3,000. The legislature sits biennially for sixty days. Salary of members $4 per day.

History.—See NEW MEXICO in vocabulary, *ante.*

New York.

Area and Population.—New York has an extreme length of 320 miles, and a breadth of 310 miles. Total area, 49,170. Population (1900) 7,268,894.

Topography.—The surface of the State is variegated, running from coast lowland on the southeast to mountains in the north. The western portion is less broken than the eastern. The Highlands are spurs of the Blue Ridge. The Catskills in the east are rugged and broken, some of the eminences rising to a height of 3,800 feet. The Adirondacks, west of Lake Champlain, are still higher, some of the peaks rising to over 5,000 feet.

Climate.—The climate of New York State varies with topographic conditions. It is severe in winter in the mountainous parts, and warm in summer. Ocean and lake influences serve to modify it, and rob it of extremes. All in all, it is healthful and conducive to soil products.

Soil.—This is greatly diversified. In general it is fertile, especially in the valley sections, and is susceptible, even in hilly sections, of cultivation at a profit.

Waters.—The Hudson passes through the State in a deep, tidal channel affording excellent navigation and much picturesque scenery. The St. Lawrence borders the State on the northwest. The Mowhawk enters the Hudson above Troy. The Seneca, Black and Genessee empty into Lake Ontario. The Susquehanna and Delaware find their head-waters in the State. Lake Ontario forms part of the northwest, and Lake Erie part of the western boundary. Long Island Sound separates Long Island from Connecticut. There are many fine lakes, many of them navigable. The rivers of the State furnish abundant water power.

Products.—The agricultural products are the cereals, hay, dairy outputs, vegetables and fruits. Climate and soil invite such products in abundance and in great perfection. The manufactures cover every branch of productive industry, and the State ranks first in this respect. Mineral products are iron ore, copper, limestone, sandstone, slate, granite, marble, salt. Commerce, by river, lake and ocean, far excels that of any other State.

Cities.—New York City, at the head of New York Bay, is the metropolis of the State. It is the largest city in America, and the most important commercial, financial and manufacturing centre. Population 3,437,202. Buffalo, on Lake Erie, is the commercial outlet of the great lake system. Population 352,387. Albany, on the Hudson, is the capital of the State. It has the largest and costliest capitol building in the country, erected at a cost of $25,000,000. Population 94,151. Rochester, on the Genessee, has extensive manufactures. Population 162,608. Syracuse, on the Erie Canal, is centre of the salt industry. Population 108,371. Troy, on the Hudson, is a large manufacturing centre. Population 60,651. Utica, on the Mohawk River, is a manufacturing and trading city. Population 56,383. Oswego, on Lake Ontario, is a grain shipping point. Population 22,199. Binghamton, on the Susquehanna, is an important manufacturing and shipping point. Population 39,647. Auburn is a manufacturing town and seat of Auburn University. Population 30,345. Elmira, on Chemung River, has large iron and steel works. Population 35,672. Yonkers, on the Hudson, is a manufacturing and residential city. Population 47,931. Schenectady has large locomotive and car works. Population 31,682. Cohoes, on the Mohawk, is noted for its immense water power. Population 23,910. Jamestown, on Lake Chautauqua, has fine water power. Population 22,892. Kingston, on the Hudson, is an important shipping point. Population 24,535. Mt. Vernon, north of New York City, is a residential city. Population 21,221. Newburg, on the Hudson, is a manufacturing and shipping point. Population 24,945. Poughkeepsie is a mercantile and manufacturing point. Population 24,029. The State is remarkable for the number of its thriving minor cities and towns.

Education.—The common school system is regarded as a model, and the State is very liberal in its support. The school age is from five to twenty-one years, and attendance is compulsory on all between eight and fourteen years. Among the numerous and prosperous higher institutions of learning are Columbia University, New York City; Polytechnic Institute, Brooklyn; Cornell University, Ithaca; Union College, Schenectady; Rochester University, Syracuse University, Colgate University, Rensselaer University, Troy; United States Military Academy, West Point. There is a very large number of other higher institutions of learning in the State, all well equipped and prosperous.

Government.—The governor is elected for two years. Salary, $10,000. The legislature meets annually and there is no limit to the length of the session. Pay of members $1,500 per year. The judiciary is elective for stated terms.

History.—See New York in vocabulary, *ante*.

North Carolina.

Area and Population.—North Carolina has an extreme length of 520 miles and a breadth of 200 miles. Total area, 52,250 square miles. Population (1900) 1,893,810.

Topography.—The surface consists of a low coast-line region, nearly 100 miles in width. In this section are many marshes, and pine covered areas. The rivers are sluggish. The central portion of the State is higher and the soil is good. Beyond is a still higher region, in the nature of a plateau, and still beyond comes the mountainous section, some of whose peaks rise to the height of 5,500 feet.

Climate.—In the coast sections the climate is warm, damp and malarial. In all the higher regions the air is of medium warmth and very healthful. In the mountainous portions there are many health resorts. There is an abundant rainfall.

Soil.—The soil of the low country is not productive except in favored spots. It, however, bears naturally the celebrated North Carolina pine, so much used for turpentine and flooring-boards. The soil of the central and higher plateau portions is good. That of the mountain sections is thin, except in the valleys, some of which are very fertile.

Waters.—The Atlantic Ocean washes the eastern coast. From the ocean project inland many lagoons and sounds, the largest of the latter being Albemarle, Pamlico and Currituck. The numerous rivers which run eastward have a rapid descent to the lowlands, but then become sluggish. Among these are the Cape Fear, Roanoke, Neuse, Tar, Chowan, Catawba and Yadkin. The New River flows northwestward into the Kanawha. The French Broad, Little Tennessee and Chattooga, help to form the Savannah.

Products.—The agricultural products are the cereals, tobacco, vegetables, rice, cotton and fruits. The fisheries are profitable. Manufactures embrace cotton, iron, wooden wares, lumber, turpentine, pitch, rosin. The mineral products are iron ore, coal, clays, building stones, etc.

Cities.—Wilmington, on Cape Fear River and a capacious harbor, is a manufacturing and commercial city. It was the leading port of entry of the Confederacy. Population 20,976. Raleigh is the State capital and centre of the tobacco region. Population 13,643. Newberne, on the Neuse River, is a lumber-shipping point. Population 9,090. Greensborough is a railroad centre. Population 10,035. Durham is noted for its tobacco products. Population 6,679. Charlotte is a manufacturing point. Population 18,091. Asheville is a favorite health resort. Population 14,694. Other cities and towns are Concord, population 7,910; Elizabeth, population 6,348; Fayetteville, Gastonia, Goldsborough, on Neuse River, population 5,877; High Point, Kinston, Salisbury, population 6,277; Washington, Winston, population 13,650.

Education.—Common schools are provided for all children of school age, the races being educated separately. Among higher institutions are the

University of North Carolina, Shaw University, Trinity University, Davidson, Wake Forest, St. Mary's, Biddle, Elon, Weaverville, Rutherford, and others of minor import.

Government.—The governor is elected for four years. Salary $4,000. The legislature sits biennially and the session is limited to sixty days. Pay of members, $4 per day. The judiciary is elective and for stated terms.

History.—See NORTH CAROLINA in vocabulary, *ante.*

North Dakota.

Area and Population.—North Dakota has an extreme length of 360 miles and a breadth of 210 miles. Total area, 70,795 square miles. Population (1900) 319,146.

Topography.—The eastern section of the State in the Red River Valley is a level, productive prairie. Westward of this region the surface becomes rolling, broken and elevated, some portions attaining an altitude of 1,500 to 1,800 feet, and forming the divide between the northern and southern drainage systems. In the southwest portion there are elevations approximating 3,000 feet in height.

Climate.—Winters are not generally severe for so high a latitude, owing to the rarity and dryness of the atmosphere. Summers are sometimes hot, but the nights are delightfully temperate. All in all, it is a most invigorating and healthful climate.

Soil.—The soil of the Red River Valley is a dark, rich loam, several feet in depth and underlaid with clay. It ranks as the best wheat land in the world. The soil of the western and higher portion of the State is productive of rich grasses, which support and fatten great numbers of cattle.

Waters.—The Red River of the North forms a large part of the eastern boundary of the State. It drains into Hudson Bay and has many affluents, the Sheyenne being the largest. The Missouri crosses the State and is navigable. It receives in its course the Yellowstone, Cannon Ball, Heart Knife, Little Missouri, Dakota, and many smaller tributaries. There are no swamps or marshes, but many beautiful lakes, among the largest of which is Devil's Lake, a part of the Salt Lake system of the northeastern part of the State.

Products.—The State produces the cereals, especially wheat, in great quantities and perfection, vegetables and fruits. Stock-raising is a large industry in the western portions. Manufactures are limited. Timber is limited to the watercourses. A lignite, or soft, brown coal, underlies much of the State. Other minerals exist in limited quantities.

Cities.—Bismarck, the capital, is on the Missouri River in the centre of a grazing country. Grand Forks, on the Red River, is in the midst of a wheat-producing region. Population 7,652. Fargo is the commercial and manufacturing centre of the State, upon the Red River of the North. Population 5,989. Smaller places of more or less importance are Cando, Casselton, Devil's Lake, Dickinson, Grafton, Hillsboro, Jamestown, Langdon, Lisbon, Mandan, Minot, Pembina, Valley City, Wahpeton.

Education.—The State has an excellent common school system, toward which it appropriates approximately $2,000,000 per year. There is a State university at University. Fargo College is at Fargo, and Red River Valley University at Wahpeton. There are two State normal schools, and a State agricultural college.

Government.—The governor is elected for two years. Salary $3,000. The legislature meets biennially and the session is limited to sixty days. Pay of members, $5 per day. The judiciary is elective for stated terms.

History.—See NORTH DAKOTA in vocabulary *ante.*

Ohio.

Area and Population.—Ohio has an extreme length of 230 miles and a breadth of 205 miles. Total area, 41,060 square miles. Population (1900) 4,157,545.

Topography.—The surface is gently undulating, reaching its highest elevations in the interior, whence there are gentle slopes toward Lake Erie and the Ohio River. The central elevation forms the divide between the affluents of the two waters mentioned above. There are no mountains.

Climate.—The climate of Ohio is variable, being severe in winter along the lake, and moderate along the Ohio. It is warm in summer, particularly in the southwest. On the average it is temperate and healthful, except in lowland sections, where malaria is found.

Soil.—The soil is excellent throughout the State, and susceptible of fine growths of agricultural products. While the surface is rolling, it has evidently been subjected to the same natural influences that created and enriched the great prairie regions.

Waters.—The Ohio River forms the southeastern and southern boundary. It is navigable. Its tributaries are the Muskingum, Sciota, Hocking, Little Beaver. Mahoning, the two Miamis.

Lake Erie borders the northern part for a distance of 230 miles and receives the Maumee, Sandusky, Portage, Black, Rocky, Chagrin, Huron, Ashtabula, Vermillion and Cuyahoga Rivers. There are some salt springs, but few lakes.

Products.—Ohio grows all the cereals in great perfection, hay, vegetables and fruits. Dairy products are valuable. The breeding and raising of horses, hogs and cattle is a profitable industry. Manufacturing is extensively carried on, the output covering nearly the whole field of that industry. Mineral products are bituminous coal, iron ore, petroleum, natural gas, limestone and many varieties of building stones.

Cities.—The largest city is Cleveland, on Lake Erie. It has a good harbor and enjoys an extensive commerce and manufactures. Population 381,768. Cincinnati, on the Ohio, is a manufacturing and shipping city. Population 325,902. Columbus is the State capital, with the State buildings and numerous public institutions. Population 125,560. Toledo, on the Maumee, has large shipping interests. Population 131,822. Dayton, on the Miami, has fine water power and factories. Population 85,333. Springfield has important manufactures. Population 38,253. Sandusky, on Sandusky Bay, is a commercial and manufacturing centre. Population 19,664. Akron is a flourishing manufacturing and shipping point. Population 42,728. Canton is the centre of a rich agricultural region. Population 30,667. East Liverpool has extensive terra-cotta, china and glass works. Population 16,485. Findlay has large factory interests. Population 17,613. Hamilton, on the Miami, is centre of a rich agricultural section. Population 23,914. Lima is in an oil region. Population 21,723. Lorain, on Lake Erie, is an important commercial and manufacturing point. Population 16,028. Mansfield is centre of an extensive agricultural region. Population 17,640. Newark has extensive manufactures. Population 18,151. Portsmouth, on Scioto River, has numerous shops and distilleries. Population 17,780. Youngstown, on the Mahoning River, has large railroad, coal-mining and manufacturing interests. Population 44,845. Zanesville has manufactories of glass, tiles, etc. Population 23,538. Ohio is dotted with smaller cities and towns of busy commercial, manufacturing and mercantile turn.

Education.—Ohio has an excellent common school system, which is liberally supported by the State. School age is from six to twenty-one years. Education is compulsory. There are great numbers of higher institutions of learning, among which are the State University at Columbus, with its many affiliated departments; Ohio University, Oberlin College, Kenyon, nine normal schools, law, medical and scientific schools, Cleveland University, Medical School, College for Women, and School of Arts, Miami University, Hiram, and Marietta Colleges, University of Cincinnati, and many denominational and eleemosynary institutions, public and private.

Government.—The governor is elected for two years. Salary $8,000. The legislature meets biennially and there is no limit to the length of the session. Pay of members, $600 per year. The judiciary is elective for prescribed terms.

History.—See OHIO in vocabulary, *ante*.

Oklahoma T.

Area and Population.—Oklahoma has an extreme length of 365 miles and a breadth of 210 miles. Total area, 39,030 square miles, inclusive of the Cherokee Strip. Population (1900) 398,331.

Topography.—The surface is a general slope from northwest to southeast. It is gently rolling and interspersed with river bottoms. Nearly all of it in the eastern parts is arable. In the south the Wichita range presents some moderate elevations.

Climate.—Summers are long and warm; winters short and cold. On an average the climate is mildly temperate and healthful. There are some malarial sections in the southwest. Droughts prevail at times.

Soil.—The soil in the eastern and central parts is rich and productive. In the western parts it is productive of grasses valuable for grazing. In the extreme west the soil is more or less saturated with salt and is unproductive.

Waters.—The Red River bounds Oklahoma on the south. The other rivers, as the Canadian and Cimarron, find their sources in the Rocky Mountains and traverse the Territory from northwest to southeast. They vary much in their volumes at different seasons.

Products.—The agricultural products are the cereals, cotton, vegetables and fruits. Stock-raising is an important industry. Manufactures are in their infancy. The mineral products are limited, coal being the chief.

Cities.—Guthrie, on Cottonwood River, is the capital. It is young and prosperous, with a population of 10,006. Oklahoma City, on the North Canadian River, is the principal manufacturing city. Population 10,039. Smaller towns are **Alva,**

Blackwell, Chandler, Elreno, Enrid, Hennessey, Kingfisher, Newkirk, Norman, Pawnee, Ponca, Shawnee, Stillwater, Tecumseh, Weatherford.

Education.—The common school system is well worked out and liberally supported. There is a normal school at Edmund, an agricultural and mechanical college at Stillwater, a Territorial university at Norman, and an Indian school.

Government.—The government is that of all the Territories, an appointed governor for four years, and an elective legislature. The legislature meets biennially and sits for sixty days. Salary of the governor $2,400; of legislators $4 per day.

History.—See OKLAHOMA in vocabulary, *ante.*

Oregon.

Area and Population.—Oregon has an extreme length of 375 miles and a breadth of 290 miles. Total area, 96,030 square miles. Population (1900) 413,536.

Topography.—The surface of Oregon is diversified by three north and south ranges of mountains—the Blue Mountains, Cascade and Coast range. The Cascade Mountains are lofty, some peaks rising to a height of 11,000 feet. They are a continuation of the Sierra Nevadas, and divide the State into two sections known as East and West Oregon. The Blue Mountains in the eastern part of the State are also lofty and rugged. Between the ranges are great valley stretches, variegated by rivers, forests and lesser elevations.

Climate.—Winters are mild and short except in the mountains. Summers are seldom excessively warm. The coast regions have abundant rainfalls; the eastern portions are dryer, but droughts are seldom disastrous. The entire State is healthful.

Soil.—In all portions of the State except in the mountains, the soil is of good quality and productive of paying crops. That of the east, as well as the climate, differs materially from that of the west in its properties. The soil supports immense forest areas of pine, poplar, birch, redwood, spruce, fir, chestnut, maple and oak.

Waters.—The Columbia River, flowing westward, and navigable, forms part of the northern boundary of the State. It receives the Snake and Willamette Rivers and most of the other large rivers of the State. The Pacific coast line is some 300 miles long, with numerous harbors. There are many fine lakes, the largest being Klamath, Summer, Albert, Goose, Harney and Malheur.

Products.—The agricultural products are the cereals, hay, tobacco, hops, all the vegetables and fruits, the latter in great quantities and of fine quality. Cattle-raising is an important industry. There are large manufactories of lumber, flour, woolens, linen and paper. The salmon fisheries are very profitable. Mineral products are gold, silver, lead, copper, iron ore, coal, clays, glass-sands, granite, marble, slate.

Cities.—Portland, on the Willamette, is a port of entry, and the chief manufacturing and commercial city. Population 90,426. Salem is the State capital, on the Willamette. Population 4,258. Astoria, on the Columbia River, is seat of the fishing, lumber and coal-mining industry. Population 8,381. Other towns of more or less importance are Baker City, Albany, Ashland, Eugene, Grant's Pass, La Grande, Oregon, The Dalles.

Education.—The comomn school system is managed by a State board of education, and is liberally supported. Among higher institutions of learning are: University of Oregon, State Agricultural College, Pacific University, McMinnville College, four State normal schools, etc.

Government.—The governor is elected for four years. Salary $1,500. The legislature meets biennially and the length of the session is without legal limit. Pay of members $3 per day. The judges are elective for prescribed terms.

History.—See OREGON in vocabulary, *ante.*

Pennsylvania.

Area and Population.—Pennsylvania has an extreme length of 300 miles and a breadth of 180 miles. Total area, 45,215 square miles. Population (1900) 6,302,115.

Topography.—The surface of the State is greatly diversified. It is crossed centrally from northeast to southwest by several nearly parallel ridges of the Appalachian system, which divide it into extensive valleys. In the western portions the surface is irregular but cultivable. In the southeastern portions there is a general slope toward tide-water. The highest elevations in the mountainous sections do not exceed 3,000 feet, and the more distinct ranges throw off many lateral spurs, which still further diversify the surface.

Climate.—Climate varies with the topography. In the western and mountainous sections, winters are sometimes severe and lengthy, while those in the eastern sections are modified. Summers are those of the temperate zone. The averages denote a happy climatic medium, invigorating and healthful.

Soil.—The soil of the State is, in general, productive. This is especially true of the eastern and western sections, and of all the central valley sections. The mountainous regions support forests, which were once very valuable for pine and hard-wood products. There are many extensive sections of limestone land, which yield great agricultural wealth.

Waters.—The State is abundantly watered by swiftly flowing streams. The Susquehanna River courses through the east-central portion, and vents rapidly a large volume of water. It is not navigable. The Delaware forms the eastern boundary. It is a picturesque stream, and becomes tidal at Trenton, N. J. The Allegheny and Monongahela, flowing in opposite directions, unite at Pittsburg to form the Ohio. The Juniata flows easterly and enters the Susquehanna. The Lehigh enters the Delaware at Easton, and the Schuylkill the Delaware at Philadelphia. Less important streams are the Lackawanna, Conemaugh and Youghiogheny. There are numerous mineral springs and some pretty mountain lakes.

Products.—The State produces in goodly quantities all the cereals, vegetables and fruits. Dairying is extensively carried on and many cattle are fattened annually. The manufactures are extensive and embrace every branch of the industry, iron and steel, cotton and woolen goods, lumber, leather, glass, pottery, etc. The State is particularly rich in mineral products, and ranks first in its outputs of anthracite and bituminous coal, iron ore and petroleum. Among its other mineral products are nickel, copper, zinc, marble, limestone, sandstone, slate, plastic clays, salt, natural gas.

Cities.—Philadelphia is the eastern metropolis, on the Delaware. It is noted for its many historic associations, numerous homes and extensive manufactures. It is a port of entry and has a large home and foreign commerce. Population 1,293,697. Pittsburg, at the confluence of the Allegheny and Monongahela is the western metropolis of the State, and centre of the most extensive mining and metal productions in the country. Population 321,616. Allegheny, opposite Pittsburg, shares with it immense manufacturing interests. Population 129,896. Scranton, on the Lackawanna, is an important centre in the anthracite coal regions. Population 102,026. Harrisburg, on the Susquehanna, is the State capital. Population 50,167. Lancaster is the centre of a rich agricultural section. Population 41,459. Reading, on the Schuylkill, is a manufacturing and shipping city. Population 78,961. Chester, on the Delaware, is a manufacturing city. Population 33,988. Erie, on Lake Erie, is an important port and manufacturing point. Population 52,733. Altoona, at the eastern base of the Alleghenies, has extensive car works and other manufacturing industries. Population 38,973. Wilkes-Barre, on the Susquehanna, has large coal-mining and shipping interests. Population 51,721. Johnstown, on the Conemaugh, has extensive iron works. Population 35,936. Williamsport, on the Susquehanna, is an important lumber mart. Population 28,757. York is centre of an extensive agricultural region and has large manufacturing industries. Population 35,708. Allentown, on the Lehigh, is a manufacturing centre. Population 35,416. Easton, at the forks of the Delaware and Lehigh, is the seat of Lafayette College. Population 25,238. Other more or less important places are Bethlehem, population 7,293; Bradford, population 15,029; Carbondale, population 13,536; Corry, population 5,369; Franklin, population 7,317; Hazleton, population 14,230; Lebanon, population 17,628; Lock Haven, population 7,210; Meadville, population 10,291; Monongahela, population 5,173; Oil Ctiy, population 13,264; Pittston, population 12,556; Titusville, population 8,244; Greensburg, population 6,508.

Education.—The State enjoys an excellent common school system. Education is compulsory. Some $24,000,000 is expended annually on common schools, of which the State appropriates $5,000,000. Among the higher institutions of learning are the University of Pennsylvania, at Philadelphia; Girard College; Lafayette College, Easton; Lehigh University, Bethlehem; Dickinson College, Carlisle; Haverford College, Haverford; Swarthmore College, Swarthmore; Bryn Mawr College for Females, Bryn Mawr; Washington and Jefferson College, at Washington; Franklin and Marshall College, Lancaster; Bucknell College, Lewisburg; Pennsylvania State College, Susquehanna University, and numerous others at different points, of a sectarian, scientific, professional and charitable kind. Philadelphia ranks first in the country as a medical centre of instruction.

Government.—The governor is elected for four years. Salary, $10,000. The legislature meets biennially, and there is no limit to the length of the session. Pay of members, $1,500 per session. The judiciary is elective for stated terms.

History.—See PENNSYLVANIA in vocabulary, *ante.*

Philippines.

Area and Population.—The Archipelago in the Pacific, acquired from Spain in 1898, is a group of numberless islands of an aggregate area estimated at 143,000 square miles, and of a population estimated at 7,000,000. The largest islands are Luzon, Mindanao, Palawan, Mindoro, Panay, Negros, Cebu, Bohol, Lyte, Samar, Masbate.

Topography.—The islands of the group, estimated at 1,100 to 1,200 in number, and some 400 of which are inhabited, are of volcanic origin, and nearly all are traversed by mountain ranges, some of them rising to a height of 9,000 or 10,000 feet. There are still some active volcanoes. The coast lines of the islands are, in general, low, and the larger ones contain many beautiful valleys.

Climate.—The climate is tropical with an average temperature of 80°, and with extremes of from 60° to 100°. There is a heavy rainfall from May to September. The moisture and temperature produce a rich vegetation. Monsoons of severity prevail at times. All in all, the climate is healthful for a tropical one.

Soil.—The soil is, as a rule, rich, especially in the valley and level sections. Even the mountain slopes are productive, and support forests of choice woods.

Waters.—The larger islands are well watered with streams, some of which are navigable for short distances. There are also numerous lakes and expansive bay indentations.

Products.—The islands are rich in such agricultural products as rice, millet, hemp, sugar, indigo, tobacco, coffee, cotton, cinnamon, sago, cocoanuts, bananas, fruits of various kinds. Excellent hard-wood timber and dye-woods are produced. Pearl fisheries are productive and valuable. Mineral products are gold, copper, iron, lead, mercury, sulphur and coal. Manufactures are cigars, hemp fibre, earthenware, straw hats, jewelry, and loom products of a simple kind.

Cities.—Manila, on the island of Luzon, is the leading city. It is admirably situated on a capacious bay, and has an extensive commerce. Population 297,154. There are numerous other towns on this island of greater or less importance. Nearly all the larger islands have small towns at their principal ports of entry.

Education.—Prior to the cession of the islands to the United States, education was limited to private schools under control of the Catholic Church. Since then a common school system, after the American plan, has been introduced and these are employing both American and native teachers, chiefly the former. The natives are found quick to learn, and the supreme effort now is to give them every facility.

Government.—A new civil government has been formed for the islands, after the fashion prevailing in the Territories of the United States, an appointive governor and an elective legislature. The whole country is a military division, and as such accountable to the United States Department of War.

History.—See PHILIPPINES in vocabulary, *ante*.

Porto Rico.

Area and Population.—The island of Porto Rico, ceded by Spain to the United States in 1898, has a length of 100 and a breadth of 36 miles. Area, 3,600 square miles. Population 953,243.

Topography.—It is in the Carribean Sea, east of Cuba, and its surface consists of rolling slopes toward the coast lines, with a central range of mountains running east and west in the centre, some of whose elevations rise to a height of over 3,000 feet. There are numerous valley sections devoted to grazing.

Climate.—The climate is equable, the average temperature being 80°, with little allowance for extremes. The ocean breezes temper the heat of the entire island, especially at nights. On the whole the climate is healthful. The annual rainfall is heavy.

Soil.—The soil is, in general, fertile, and yields all semi-tropical products, when carefully cultivated. There are many grazing areas and fine forest sections.

Waters.—The island is well watered with numerous small streams. The coasts are indented with extensive lagoons, and three fine bays affording excellent harbors.

Products.—The soil products are sugar, coffee, tobacco, cotton, bananas, rice, vegetables and fruits. Manufacturing is in its infancy. The mineral products are as yet undeveloped, but gold, copper, iron, lead, coal and salt are found.

Cities.—San Juan, on the northern coast and on San Juan Harbor, is the chief city. It enjoys an extensive commerce. Ponce is the second city in size and importance. It is on the southern coast and has a large trade in coffee and tobacco. Smaller towns are Aguadilla, Arecibo, Arroyo, Fajardo, Mayaguez, Naguabo, St. German.

Education.—An excellent common school system has been framed by the new authorities, and it is being rapidly put into working order under the auspices of American teachers. There is a university at San Juan, with medical and law courses.

Government.—A government for Porto Rico was enacted by the United States in 1900. It creates a governor, appointive by the President, and a legislature consisting of an upper and lower house, the latter elective by the people, the former appointive by the President, but five of its members must be citizens of the island.

History.—See Porto Rico in vocabulary, *ante.*

Rhode Island.

Area and Population.—Rhode Island has an extreme length of 50 miles and a breadth of 35 miles. Total area, 1,250 square miles. Population (1900) 428,556.

Topography.—The surface of the State is broken and hilly, and in some places very rocky. Its higher central portions slope off toward the coast and become sandy pine plains or swampy lowgrounds, with bluffy ocean projections.

Climate.—The climate is bleak and changeable in winter, but delightfully modified by ocean influences in the summer, rendering it inviting for those who seeks summer resorts.

Soil.—The soil is, in general, thin and in the northeast very rocky and difficult to cultivate. Some of the ocean approaches are of better quality, and many of the contiguous islands are very fertile.

Waters.—The coast presents an extensive water frontage owing to the many inlets and arms of Narragansett Bay. The principal rivers are the Pawtucket, Pawtuxet, Pawcatuck. Narragansett Bay is an extensive ocean inlet, piercing the State to a depth of 28 miles.

Products.—Cereals are limitedly raised, but hay, potatoes and other vegetables are grown. Manufactures of nearly every kind are extensive. Mineral products are iron ores, copper, slate, limestone, granite and limited quantities of coal.

Cities.—Providence is the capital and metropolis of the State. It is on Narragansett Bay and enjoys extensive manufactures and commerce. Population 175,597. Newport, on the southwest shore of Rhode Island, is a famous summer resort. Population 22,034. Pawtucket, on the river of the same name, has fine water power and large manufacturing interests. Population 39,231. Bristol is a port of entry on Narragansett Bay. Central Falls is an extensive factory centre. Population 18,167. Other towns are Coventry, Cranston, Cumberland, East Providence, Lincoln, Warren, Warwick, Westerly, Woonsocket, with large manufacturing interests. Population 28,204.

Education.—The State has a liberal common school system, for which it expends some $1,500,000 annually. Factory children under fifteen years of age must attend school at least three months in a year. Higher institutions of learning are Brown University, at Providence; a State normal school, Rhode Island College of Agriculture and Mechanics, etc.

Government.—The governor is elected for one year. Salary, $3,000. The legislature meets annually and sits without limit. Pay of members, $5 per day. The judiciary is elected for stated terms by the legislature.

History.—See Rhode Island in vocabulary, *ante.*

South Carolina.

Area and Population.—South Carolina has an extreme length of 235 miles and a breadth of 215 miles. Total area, 30,570. Population (1900) 1,340,316.

Topography.—The Blue Mountains enter the northwestern portion of the State and contain some peaks approximating 4,000 feet in height. The central portion of the State presents an undulating surface. Toward the seacoast the surface becomes low, level and in many places marshy.

Climate.—In the higher sections of the State the climate is of an agreeable temperature and healthful. In the lower sections it is moist, heavy and conducive to malarial conditions.

Soil.—Outside of the mountainous sections, all upland soils are generally productive, those of a sandy nature being less so than others. Lowland soils are good when favorably located, and the island soils are quite fertile, and famed for their cotton products.

Waters.—The Atlantic Ocean washes the eastern coast, but within the extreme coast line are extensive sounds which are navigable. The Savannah River forms the west and southwest borders of the State. It is navigable to Augusta, Ga. The Saluda, in the northwest, joins the Broad River to form the Congaree, and the latter, with the Wateree, form the Santee. This system of rivers furnishes navigation as far as Columbia and Camden. The Great Pedee is navigable to Cheraw. Smaller rivers are the Ashley, Cooper, Blackburn, Little Pedee, Ashepoo, Combahee.

Products.—Agricultural products are rice, cotton, the cereals, tobacco, the vegetables and fruits. Considerable stock is raised. The manufactures consist of cotton goods, cotton-seed oil, turpentine, rosin, pitch, leather, lumber and fertilizers. Mineral products are gold, copper, iron, lead, graphite, manganese, granite, kaolin, marble and limestone.

Cities.—Charleston, on the Atlantic coast, is the leading commercial city of the State. Population 55,807. Columbia, on the Congaree, is the

State capital. Population 21,108. Greenville, on the Reedy River, is a manufacturing and mercantile centre. Population 11,860. Other towns are Anderson, population 5,498; Florence, population 4,647; Aiken, noted as a summer resort; Beaufort, on Port Royal Island; Georgetown, population 4,138; Orangeburgh, population 4,455; Rock Hill, population 5,485; Spartanburgh, a railroad centre, population 11,395; Sumter, population 5,673.

Education.—The common school system is under a State board of education, with a State commissioner who is advised by county commissioners. Among the higher institutions of learning are a State normal school, State University, agricultural colleges, Newberry, Wofford and Erskine Colleges, Furman University, a medical college and military academy.

Government.—The governor is elected for two years. Salary, $3,000. The legislature meets annually and sits for forty days. Pay of members, $4 per day. The three justices of the Supreme Court are elected by the legislature for six years. There are general session, common pleas and probate courts.

History.—See SOUTH CAROLINA in vocabulary, *ante.*

South Dakota.

Area and Population.—South Dakota has an extreme length of 380 miles and a breadth of 245 miles. Total area, 77,650. Population (1900) 401,570.

Topography.—The major portion of the surface is a rolling prairie, divided into two sections by the Missouri River. In the southwestern portion are the very rugged and considerably elevated Black Hills. The "bad lands" lie between the White and Big Cheyenne Rivers. The surface west of the Missouri is characterized by many abrupt and isolated buttes, some of them rising to a height of from 1,000 to 1,500 feet.

Climate.—Winters are usually mild, with early spring openings. Summers are seldom hot. The air is dry and healthful. Ordinarily there is sufficient rainfall, but droughty periods are not uncommon.

Soil.—In all the rolling prairie and valley sections the soil is excellent. That of the "bad lands" is barren. Mountain lands are thin, though supporting in places considerable forests of valuable timber.

Waters.—The Missouri River winds through the State in a circuitous course, receiving from the west the Grand, Owl, Cheyenne and White Rivers, and from the north the Dakota, Vermillion and Big Sioux. There are many lakes, chief of which are Traverse and Big Stone.

Products.—Agricultural products are the cereals, flax, hay, sorghum, vegetables and fruits. Manufactures are in their infancy. Mineral products are gold, silver, copper, lead, mica, tin, the clays, cement, limestone, chalk and varieties of building stones.

Cities.—Sioux Falls has agricultural, manufacturing and quarry interests. Population 10,266. Lead City is centre of a mining region. Population 6,216. Pierre is the capital of the State, on the Missouri. Population 2,306. Aberdeen is an important railroad centre. Population 4,087. Yankton, on the Missouri, is a commercial and shipping city. Population 4,125. Other towns are Brookings, population 2,346; Deadwood, population 3,498; Huron, population 2,793; Madison, population 2,550; Mitchell, population 4,055; Vermillion, population 2,183; Watertown, population 3,352.

Education.—A liberal common school system exists, to which the State contributes annually some $1,500,000. Higher institutions of learning are the University of South Dakota, Yankton College, State Agricultural College, Dakota University, State School of Mines, State Reform School and two normal schools.

Government.—The governor is elected for two years. Salary, $3,000. The legislature meets biennially and sits for sixty days. Pay of members, $5 per day. The judiciary is elective for stated terms.

History.—See SOUTH DAKOTA in vocabulary, *ante.*

Tennessee.

Area and Population.—Tennessee has an extreme length of 430 miles and a breadth of 120 miles. Total area, 42,050 square miles. Population (1900) 2,020,616.

Topography.—The Unaka wing of the Appalachian Mountains separates the State from North Carolina. Westward of these mountains comes the East Tennessee Valley. Then comes the Middle Tennessee Valley section extending to the Tennessee River. Beyond, and reaching to the Mississippi, is the plain section of West Tennessee.

Climate.—The climate is a modification of that of the temperate zone. Winters are mild and short. Summers are modified by mountain breezes. Some malaria exists in sections along the Mississippi, but in general the air is very pure and healthful. There are many health resorts in the mountain sections.

Soil.—All the valley, plain and lowland soils of Tennessee are fertile, rendering agriculture a leading industry. Mountain sections support a rich forest growth of pine, cypress, cottonwood, poplar, hickory, gum, walnut, ash, maple, locust, beech, oak and cedar.

Waters.—The State is well watered and has abundant water power. The Tennessee and Cumberland Rivers, with their remarkable courses and numerous tributaries, constitute the main drainage system of the State. The Hiawassee, Sequachee, Big Sandy, Duck, Elk, Pigeon and Nolachucky empty into the Tennessee. The Cumberland receives the waters of the Caney, Obey, Stone and Harpeth. The Mississippi receives the Obion, Forked Deer, Hatchee, Loosahatchee and Wolf Rivers. There are few lakes.

Products.—Agricultural products are the cereals, cotton, tobacco, hay, hemp, flax, the vegetables and fruits. Stock-raising is an important industry. There are important manufactures of cotton, flour, lumber, leather, paints and metal articles. Mineral products are iron ore, coal, copper, zinc, lead, asbestos, mill and grindstones, cement, clays, petroleum, gypsum, borax, salt, marble and a variety of building stones.

Cities.—Nashville is the State capital, on the Cumberland River. It contains the State buildings and many prominent institutions. Population 80,861. Memphis, on the Mississippi, has extensive manufactures and shipping. Population 102,320. Chattanooga, on the Tennessee, is a mercantile and manufacturing city. Population 30,154. Knoxville, on the Tennessee, is a commercial centre. Population 32,637. Bristol is a manufacturing centre. Population 5,271. Clarksville is a tobacco centre. Population 9,431. Jackson is a cotton centre. Population 14,511. Other towns are Maury, Dyersburgh, Murfreesborough, etc.

Education.—The State has an excellent school system, which it supports by liberal annual contributions. The races are educated separately. Among the higher institutions of learning are the Nashville University, Tennessee University, Agricultural College, Vanderbilt University, Cumberland University, University of the South, King College, and various other professional, scientific, denominational and eleemosynary institutions.

Government.—The governor is elected for two years. Salary, $4,000. The legislature meets biennially and the term is limited to seventy-five days. Pay of members, $4 per day. The judiciary is elective for prescribed terms.

History.—See TENNESSEE in vocabulary, *ante.*

Texas.

Area and Population.—Texas has an extreme length of 760 miles and a breadth of 620 miles. Total area, 265,780 square miles. Population (1900) 3,048,710.

Topography.—The surface is highly diversified. In the southeast it is level, inclining to low. In the interior it is undulating. In the west and northwest it is mountainous. The principal mountain system is between the Rio Grande and Pecos Rivers. In the midst of the Organ and other ranges are table-lands and salt plains. Some of the elevations reach as high as 5,000 to 6,000 feet. The highest point in the State is Baldy's Peak, 8,382 feet high.

Climate.—The climate varies from that of the temperate zone in the northern part of the State to that of the semi-tropics in the southern part. Lowland and swampy sections are malarial. On the undulating sections of the interior, a delightful and healthful climate prevails.

Soil.—The soil is varied, but its general character is that of productiveness. This is true of all undulating prairie and lowland soils. In such a large and diversified expanse there must be some sections which refuse to yield soil products generously, and this is so of the areas west of the one hundredth degree of longitude where irrigation must be resorted to in order to raise crops.

Waters.—The Rio Grande forms the southwestern boundary of Texas, and receives many tributaries from the State. The Sabine forms part of the boundary between Texas and Louisiana. In the central part of the State is the Neches, which empties into Sabine Lake. Trinity River flows through the State and empties into Galveston Bay. The Brazos flows southeast and empties into the Gulf of Mexico. The Colorado of Texas, empties into Matagorda Bay. Among the other important rivers are the Guadaloupe, Neuces, Pecos, Canadian, Red. The Gulf coast is indented with many long narrow bays, few of which serve as harbors.

Products.—Agricultural products are cotton, the cereals, tobacco, sugar cane, vegetables and fruits. Horses, sheep, cattle are numerously raised on the grass-growing plains. Manufactures embrace flour, cottons, woolens, furniture, metallic articles, leather, oils, lumber, etc. Mineral products are coal, iron ore, sulphur, lead, petroleum, marble, granite, potters' clay, silver, gypsum, building stones.

Cities.—Galveston, near the Gulf of Mexico, is the State's chief port of entry. It has an extensive commerce. Population 37,789. Austin, on the Colorado River, is the State capital. Population 22,258. San Antonio is centre of a fertile agricultural section. Population 53,321. Houston, on an arm of Galveston Bay, is a railroad centre. Population 44,633. Dallas, on Trinity River, is a manufacturing centre. Population 42,638. Fort Worth, on Trinity River, is an extensive cattle mart. Population 26,688. Waco, on the Brazos, is a commercial centre. Population 20,686. Beaumont is a manufacturing town, population 9,427; Cleburne is an educational centre, population 7,493; Denison has a large factory and trade interests, population 11,867; El Paso is a port of entry on the Rio Grande, population 15,906; Laredo is a port of entry, population 13,429; Palestine has important manufactures, population 8,297. Sherman is an agricultural centre, population 10,243; Tyler is a manufacturing town, population 8,069.

Education.—The State has a liberal common school system, amply supported out of a landed fund, with provision for future growth. At present the State appropriation for school purposes is about $4,500,000 annually. Among the higher institutions of learning are the Agricultural and Mechanical College, State Normal Schools, State University, Howard Payne College, Henry College, Polytechnic College, St. Mary's University, Southwestern University, Burleson and Austin Colleges, Trinity University and several professional, technical and denominational institutions.

Government.—The governor is elected for two years. Salary, $4,000. The legislature sits biennially and there is no limit to the length of the session. Pay of members $5 per day. The judiciary is elective for prescribed terms.

History.—See TEXAS in the vocabulary, *ante*.

Utah.

Area and Population.—Utah has an extreme length of 345 miles and a breadth of 275 miles. Total area, 84,970 square miles. Population (1900) 276,749.

Topography..—The State is crossed from northeast to southwest by the Wasatch range of mountains, which divides it into two unequal parts, the western, or smaller, part being the most important. Many of the peaks of this range are very lofty. The Umta range lies in the eastern and northeastern part of the State. Some of its peaks exceed 13,000 feet in height. To the west lie the Sierra Nevadas, and between them and the Wasatch is the great desert basin with no known water outlets.

Climate.—In the mountainous districts winters are somewhat severe. In the plains and valleys the temperature is much modified. The air is dry and, on the whole, the climate is bracing and healthful. Only in very low and swampy sections does malaria prevail.

Soil.—In the plateau of the great desert, the soil is comparatively waterless and barren, supporting only coarse, sedgy grasses in places. The river valley and lower plain sections are either naturally fertile, or are rendered so by irrigation and careful tillage. The pioneering population of Utah met with a fine climate, but, in general, unpropitious soil conditions; yet the State ranks as an agricultural one through painstaking irrigation.

Waters.—In the great desert basin there is little rainfall and no streams but what are either extinguished by evaporation or absorption. In the southeast is Colorado River, which receives the San Juan, Fremont, Grand and Green. There are many smaller streams which perish in dry seasons by evaporation. The Bear, Weber and Jordan Rivers empty into the Great Salt Lake, an extensive body of salt water with no outlet. There are numerous hot and medicinal springs.

Products.—The agricultural products are the cereals, hay, vegetables and fruits. Stock-raising is an important industry. Manufactures are growing and embrace iron, leather, woolens, paper and metal products. Mineral products are gold, copper, iron ore, sulphur, antimony, building stones, salt, lead, coal, kaolin, the clays, etc.

Cities.—The capital is Salt Lake City, on the Jordan River. It is a mercantile and manufacturing city. Population 53,531. Ogden is a railroad centre. Population 16,313. Provo City is a popular resort for invalids. Population 6,185. Logan is centre of an agricultural section. Population 5,451. Smaller towns are American Fork, population 2,732; Brigham, population 2,859; Ephraim, population 2,086; Eureka, population 3,085; Manti, population 2,408; Park City, population 3,759; Spanish Fork, population 2,735; Springville, population 3,422.

Education.—A State superintendent, in connection with minor trustees, has care of the common school system, which is well established and liberally sustained. There are many parochial schools established and conducted by the Mormons. Among the higher institutions of learning are the Utah Agricultural College, Brigham Young College and University of Utah.

Government.—The governor is elected for four years. Salary, $4,000. The legislature meets biennially and the length of the session is limited to sixty days. Pay of members $4 per day. The judiciary is elective for prescribed terms.

History.—See UTAH in vocabulary, *ante.*

Vermont.

Area and Population.—Vermont has an extreme length of 155 miles and a breadth of 90 miles. Total area, 9,565 square miles. Population (1900) 343,641.

Topography.—The Green Mountain chain extends throughout the State, and contains many peaks rising to a height of from 3,000 to 4,000 feet. Mount Mansfield has an elevation of 4,364 feet. The broken mountains, deep gorges, and narrow, well-watered valleys render the State very picturesque, and particularly inviting to tourists.

Climate.—The climate is severe in winter, but modified by mountain breezes in summer. It is very healthful, and is much sought after for its salubrity by invalids.

Soil.—The soil is naturally thin, though the mountain slopes support fine forests. Valley soils are fertile under good cultivation. Agricultural areas are limited by the frequency and ruggedness of the mountains.

Waters.—The rivers are numerous, but small. Lake Champlain, on the west, receives the Missisquoi, Lamoille, Winooski and Otter. The Connecticut receives the Williams, White and Passumpsic. Many small but rapid streams drain into Lake Memphremagog and thence into the St. Lawrence. There are many fine lakes, Champlain, and Memphremagog being the largest.

Products.—Agriculture embraces the hardy cereals, hay, vegetables, fruits, cattle, especially sheep, wool and fine dairy products. Much maple sugar is produced. There are many manufactures, embracing flour, lumber, cottons, woolens and metallic products. The mineral products are granite, marble, soapstone, copper, iron, manganese, kaolin, marble, slate.

Cities.—Montpelier is the State capital. It has marble and granite works and other manufacturing interests. Population 6,266. Burlington, on Lake Champlain, is a manufacturing and commercial point. Population 18,640. Rutland is famous for its marble and dairy products. Population 11,499. St. Albans has marble and manufacturing interests. Population 6,239. Barre has granite and manufacturing interests. Population 8,448. Smaller towns, chiefly manufacturing, are Bellows Falls, Bennington, Brattleboro, St. Johnsbury.

Education.—The common school system is administered by State and town superintendents, the State providing liberally. Education is compulsory. Among the higher institutions of learning are a state agricultural college, the University of Vermont, Middlebury College, Norwich University, three State normal schools and a State reform school.

Government.—The governor is elected for two years. Salary, $1,500. The legislature meets biennially, and the length of the session is without limit. Pay of legislators $3 per day. Supreme Court judges are elective by the legislature; other judges by the people, for prescribed terms.

History.—See VERMONT in vocabulary, *ante.*

Virginia.

Area and Population.—Virginia has an extreme length of 425 miles and a breadth of 205 miles. Total area, 42,450 square miles. Population (1900) 1,854,184.

Topography.—The State has a very irregular shape and a diversified surface. The Blue Ridge Mountains traverse it, with their minor ranges and spurs, from northeast to southwest. The middle portions of the State are rolling and hilly. The eastern portions are low, level and marshy in places.

Climate.—The mountainous sections have severe winters, but cool summers. The middle sections have an equable climate. The lower sections have mild winters and warm summers, wth moisture and malaria. The averages indicate a mild, salubrious climate, with abundant rainfall.

Soil.—Mountain soils are thin. Those of the middle and rolling sections are fertile, especially in the valleys. The tide-water soils are sandy and thin, but quite susceptible of profitable tillage under modern facilities.

Waters.—Chesapeake Bay passes through the eastern portion of the State, severing a small coast area from the main portion. Rivers are numerous. The James, navigable to Richmond, flows eastward into Chesapeake Bay. The Potomac bounds the State on the northeast and empties into Chesapeake Bay. The Chickahominy and Appomattox empty into the James. The York and Rappahannock empty into Chesapeake Bay. The Shenandoah flows northward into the Potomac at Harper's Ferry. The Nottaway passes into North Carolina. The Roanoke empties into Albemarle

Sound. The New passes into West Virginia as the Kanawha. There are many mineral springs.

Products.—The agricultural products are the cereals, hay, tobacco, vegetables, fruits, dairy products. Stock-farming is a considerable interest. Manufacturing consists of flour, tobacco, leather, coke, iron and steel, cotton, lumber, ships and other useful products. The minerals are coal, iron, salt, gold, copper, lead, zinc, slate, granite, marble, sandstone, plastic clays.

Cities.—Richmond, on James River, is the State capital. It contains many stately structures, and is an important manufacturing and shipping centre. Population 85,050. Norfolk, on Hampton Roads, enjoys a fine harbor and large shipping facilities. Population 46,624. Petersburg, on the Appomattox, contains numerous manufactories. Population 21,810. Roanoke, on the Roanoke River, is a tobacco and live-stock centre. Population 21,495. Newport News, on the James, has large shipbuilding interests. Population 19,685. Lynchburg, on the James, is the centre of a large tobacco region. Population 18,891. Portsmouth, on Elizabeth River, is a manufacturing and exporting town. Population 17,427. Danville, on the Dan River, is a manufacturing centre. Population 16,520. Alexandria, on the Potomac, is a port of entry. Population 14,528. Charlottsville, on the Rivanna River, is centre of an agricultural section. Population 6,449. Fredericksburg, on the Rappahannock, has tobacco and flour manufactories. Population 5,068. Manchester, on the James, is a manufacturing centre. Population 9,715. Staunton is an active manufacturing town. Population 7,289. Winchester is centre of a rich agricultural region. Population 5,161. Other towns of lesser population are Bristol, population 4,579; Radford, population 3,344; Williamsburg, population 2,044; Mt. Vernon, Arlington.

Education.—The common schools are supported by local taxation and a permanent State fund yielding some $2,000,000 annually. The races are educated separately. Higher institutions of learning are William and Mary College, University of Virginia, Hampden-Sidney College, Washington and Lee University, Randolph-Macon Woman's College, Emory and Henry College, Virginia Military Institute, Richmond and Roanoke Colleges, Hampton Institute, Blacksburg Agricultural and Mechanical College. There are many other professional, scientific and denominational schools.

Government.—The governor is elected for four years. Salary, $5,000. The legislature meets biennially and the length of the term is sixty days. Pay of members $4 per day. The judiciary is elective by the legislature for prescribed terms.

History.—See VIRGINIA in vocabulary, *ante.*

Washington.

Area and Population.—Washington has an extreme length of 340 miles and a breadth of 230 miles. Total area, 69,180 square miles. Population (1900) 518,103.

Topography.—The State is divided into two distinct sections by the Cascade range of mountains which traverses it from north to south. Mt. Rainier, in this range, reaches an altitude of 14,520 feet. The Coast range of mountains is in the nature of an extensive spur of the Cascades. All of western Washington is a rolling country, with some prairie sections. Eastern Washington is a broken rugged section, with lighter timber, and fewer prairie areas.

Climate.—The climate is uniformly mild, there being little snow in winter, and a tempered heat in summer. Sea breezes serve to equalize temperatures. The western portions are visited with a copious rainfall. The eastern portions are dryer, and both summer and winter temperatures are more decided.

Soil.—All the soil of western Washington is, or has been, capable of supporting a forest growth of immense richness, and, except for certain broken parts, may be classed as very fertile. The soil of Eastern Washington is thinner, but all valley sections are productive. Irrigation is much resorted to in the dryer sections.

Waters.—The Strait of Juan de Fuca forms the outlet between Puget Sound and the Pacific, which last gives the State an extensive coast line with elligible harbors. The Columbia River crosses the State with a crooked course, drains much of it and forms part of its southern boundary. Its principal affluents are the Snake, Spokane, Okanogan and Yakima. All the streams of the northwestern portion of the State drain into Puget Sound. The State contains many beautiful lakes. Several small streams drain directly into the Pacific. There are numerous medicinal springs.

Products.—The agricultural products are the cereals, grasses, vegetables and fruits. Stock-raising, lumbering and the fisheries are important industries. Manufactures embrace those of lumber, flour, the metals, ships and such as belong to a new country with immense facilities and commendable enterprise. Mineral products are silver, lead, iron ore, copper, coal, salt.

Cities.—Seattle, on an arm of Puget Sound, has manufactures and commands a large railway and ocean trade. Population 80,671. Tacoma, also on an arm of Puget Sound, has a fine harbor and extensive commerce. Population 37,714. Spokane, on Spokane River, enjoys an immense water power. Population 36,484. Walla Walla, on the river of the same name, is a manufacturing point and centre of a rich grain and fruit section. Population 10,049. Olympia is the State capital, at the head of Puget Sound. Population 3,865. Other towns are Ballard, population 4,568; Everett, population 7,838; Fairhaven, population 4,228; North Whatcom, population 6,834; North Yakima, population 3,154; Port Angeles, population 2,231; Port Townsend, population 3,443; Vancouver, population 3,126.

Education.—The common school system is under the care of a State and county superintendents. The State appropriates annually over $2,000,000 towards schools, and the school age is from six to twenty-one years. Higher institutions of learning are the State University, Puget Sound University, Colfax and Gonzaga Colleges, the State Agricultural College and various higher schools for the professions, denominations and charities.

Government.—The governor is elected for four years. Salary, $4,000. The legislature meets biennially and the session is limited to sixty days. Pay of members $5 per day. The judiciary is elective by the people for prescribed terms.

History.—See WASHINGTON in vocabulary, *ante*.

West Virginia.

Area and Population.—West Virginia has an extreme length of 225 miles and a breadth of 200 miles. Total area, 24,780 square miles. Population (1900) 958,800.

Topography.—Several nearly parallel ridges of the Appalachian system traverse the State, some of them presenting considerable elevations. They make the surface broken and somewhat rugged, but there are some fine valley stretches. From the watershed of the Potomac the surface slopes off eastward toward that river, and westward to the Ohio.

Climate.—The climate changes with the topography, but in general it is mildly temperate and very healthful. There is an average rainfall; equally distributed throughout the seasons.

Soil.—Notwithstanding the mountainous character of the State the soil is fertile, and particularly in the valleys. The mountains support a rich vegetation to their summits.

Waters.—The Potomac River is the boundary between the State and Maryland for a considerable distance. It receives the Shenandoah at Harper's Ferry and several other streams of smaller dimensions. The Big Sandy, in the southwestern part of the State, empties into the Ohio, as do the Kanawha and Guyandot. The Greenbrier, Elk and Coal are tributaries of the Kanawha. The Cheat and Monongahela flow northward and unite near the Pennsylvania State line. All in all, the State is well watered and has excellent water power.

Products.—Agricultural products are the cereals, hay, flax, wool, tobacco, the vegetables and fruits, with large dairy and cattle-raising interests. The manufactures are those of iron and steel, leather, glass, flour, lumber, tobacco, salt, lime, oils, woolens, cottons, bricks and metallic wares. Mineral products are petroleum, salt, copper, zinc, lead, nickel, alum, coal, iron ores, glass sands, clays, marble, alum, graphite.

Cities.—The principal city is Wheeling, on the Ohio River. It has extensive manufacturing and commercial interests. Population 38,878. Charleston, on the Kanawha, is the State capital. Population 11,099. Huntington has extensive lumber interests. Population 11,923. Parkersburg has extensive oil refineries. Population 11,703. Martinsburg has manufacturing and mercantile interests. Population 7,564. Smaller places are Benwood, population 4,511; Bluefield, population 4,644; Fairmont, population 5,655; Grafton, population 5,650; Moundsville, population 5,362; Wellsburg, population 2,588.

Education.—The State appropriates about $2,000,000 a year toward the common schools, which are under the supervision of a State and county superintendents. The races are educated separately. Among the higher institutions of learning are the West Virginia University, State Agricultural College, six State normal schools, Barboursville and Bethany Colleges and other institutions of a professional and denominational kind.

Government.—The governor is elected for four years. Salary, $5,000. The legislature meets biennially and the session is limited to forty-five days. Pay of members $4 per day. The judiciary is elective by the people for prescribed terms.

History.—See WEST VIRGINIA in vocabulary, *ante*.

Wisconsin.

Area and Population.—Wisconsin has an extreme length of 300 miles and a breadth of 290 miles. Total area, 56,040 square miles. Population 2,069,042.

Topography.—The surface of the State may be regarded as a plain, variegated by bluffy approaches to the rivers and lakes. The highest elevation does not exceed 2,000 feet. Many mound-shaped elevations exist in the southern section of the State.

Climate.—Winters are severe and summers warm, but all are modified by the extensive water surroundings. The air is generally rare and dry, and, on the whole, very healthful. The pine forests are favorite resorts for invalids.

Soil.—The soil is either naturally excellent, or is capable of being rendered productive by careful cultivation. The immense pine sections have a thin soil, as do some of the sandy water approaches.

Waters.—The State has a coast line on Lake Superior of some 120 miles, and on Lake Michigan of 200 miles. The Mississippi, on the western border receives the Wisconsin, St. Croix, Chippewa, Buffalo, Black and Trempealeau Rivers. Lake Superior receives the Montreal, Bad, Bois, Brule and St. Louis Rivers. Green Bay receives the Menominee, Peshtigo, Oconto, Pensaukee and Fox Rivers. Lake Michigan receives the Milwaukee, Manitowoc, Kewaunee and Sheboygan. The State is abundantly watered, and there are many picturesque lakes.

Products.—Wisconsin is an agricultural State whose chief products are the cereals, hay, hops, fruits and vegetables. Dairy farming and wool production, together with cattle raising, are profitably conducted. Manufacturing is carried on extensively, with such products as lumber, woolens, leather, shoes, harness, beer, bricks, metals, etc. Mineral products are iron ore, lead, zinc, copper, marble, limestone, cement, sandstone and various clays.

Cities.—The leading city is Milwaukee, on Lake Michigan. It is an extensive manufacturing and commercial point. Population 285,315. Madison is the State capital, situated amid a system of beautiful lakes. Population 19,164. Superior, on Lake Superior, has large manufacturing and shipping interests. Population 31,091. Racine, on Lake Michigan, is a commercial and manufacturing centre. Population 29,102. La Crosse, on the Mississippi, is a manufacturing and shipping point. Population 28,895. Oshkosh, on Fox River, has large lumber and iron interests. Population 28,284. Sheboygan, on Lake Michigan, is a port of entry. Population 22,962. Appleton, on Fox River, has various industrial interests. Population 15,085. Eau Claire, on Chippewa River, has grain, flour and lumber interests. Population 17,517. Fond du Lac, on Lake Winnebago, is a grain centre. Population 15,110. Green Bay, at the mouth of Fox River, has a fine harbor and much commerce. Population 18,684. Janesville is a manufacturing town. Population 13,185. Kenosha has an excellent harbor and commercial interests. Population 11,606. Manitowoc has shipbuilding and factory interests. Population 11,786. Marinette, on Green Bay, is a port of entry. Population 16,195. Other cities and towns of more or less importance are Ashland, population 13,074; Baraboo, population 5,751; Beaver Dam, population 5,123; Beloit, population 10,436; Chippewa Falls, population 8,094; Kaukauna, population 5,115; Marshfield, population 5,240; Menasha, population 5,589; Menomonie, population 5,655; Merrill, population 8,537; Neenah, population 5,954; Oconto, population 5,646; Portage, population 5,459; Stevens' Point, population 9,524; Waukesha, population 7,419.

Education.—The common school system is liberally provided for by a landed fund, which nets approximately $6,000,000 annually for school purposes. Education is compulsory between the ages of seven and twelve years. Higher institutions of learning are the University of Wisconsin at Madison, Lawrence University, Northwestern University, Gale, Beloit, Milton, Marquette, Concordia and Ripon Colleges, five normal schools, and many similar institutions.

Government.—The governor is elected for a term of two years. Salary, $5,000. The legislature meets biennially and the length of the session is unlimited. Pay of members $500 per year. The judiciary is elective by the people for prescribed terms.

History.—See WISCONSIN in vocabulary, *ante.*

Wyoming.

Area and Population.—Wyoming has an extreme length of 365 miles and a breadth of 275 miles. Total area, 97,890 square miles. Population 92,531.

Topography.—The State is a high mountainous plateau, with many lofty elevations, the Grand Teton reaching to a height of 13,671 feet. The Rocky Mountains cross the State from southeast to northwest. Minor ranges are the Black Hills, Sweetwater, Rattlesnake, Bishop, Laramie, Big Horn and Wind River.

Climate.—The winters are somewhat severe in the mountain and southeastern sections, but the snowfall is never heavy except in the mountains. The summers are short but not oppressively warm.

All in all, the climate is invigorating and healthful.

Soil.—Valley soils are fertile, and foothill soils yield excellent grazing grasses. Mountain soils support rich forests of pine, spruce, walnut, elm, ash and cedar. Part of the Yellowstone Park lies in the northwestern part of the State, with its singular varieties of soil and natural scenery.

Waters.—While the waters of the State are bountiful, they consist chiefly of head-streams of rivers flowing beyond the State, as the Columbia, Colorado and Missouri. There are numerous lakes, many mineral springs and ample water power within the State.

Products.—Agricultural products are the cereals, except corn, vegetables and fruits. Cattle raising is an extensive industry, and wool is grown. Manufactures are limited to lumber, milling and other products incident to local conditions. Mineral products are coal, iron ore, silver, copper, lead, gypsum, salt, soda, graphite, petroleum, sulphur and various building stones.

Cities.—Cheyenne is the capital, on Snow Creek, in the southeastern part of the State. It is a railroad centre and extensive shipping point. Population 14,087. Laramie has manufactures and stock-raising and mining industries. Population 8,207. Rock Springs is in a coal-mining section. Population 4,363. Smaller places are Evanston, population 2,110; Rawlins, population 2,317; Sheridan, population 1,559.

Education.—There exists a liberal common school system, and education is compulsory. The educational standard is high. The Wyoming University is located at Laramie.

Government.—The governor is elected for four years. Salary, $2,500. The legislature meets biennially and the length of the session is limited to forty days. Pay of members, $5 per day. The judiciary is elective by the people for designated terms.

History.—See Wyoming in vocabulary, *ante*.

Minor Insular Possessions.

Guam.—This island, ceded by Spain to the United States, in 1898, is the largest of the Ladrone archipelago. It is narrow, 32 miles long, and contains about 54 square miles, though the General Land Office ascribes to it 175 square miles. Population about 9,000. The capital is Argana. The government is under control of the Navy Department. The inhabitants are mostly immigrants from the Philippines. The shores of the island are lofty, rock-bound and possess two good harbors. The soil is fertile and well forested. Climate is of medium temperature and generally healthful. The Americans have introduced schools, which are well patronized. The island is on the line of the Pacific Cable, which was completed from San Francisco to Manila on July 4, 1903.

Tutuila.—This island is one of the Pacific group, known as the Samoan Archipelago, owned jointly, prior to 1899, by the United States, Germany and England. Upon a division of sovereignty in 1899. Tutuila, with its splendid harbor of Pago-Pago, fell to the United States. It has an area of about 500 square miles and a population estimated at about 6,000. The government is under control of the Navy Department. The island is of volcanic origin, with a rich soil and warm, moist climate. It produces cocoanuts, copra, cotton, sugar, coffee. In topography it is mountainous and luxuriantly forested.

Wake Island.—This little Pacific possession, of volcanic origin, with scarcely a native occupant, with a sub-tropical climate and verdure, owes its importance to the fact that it is a coaling station, half way between Honolulu and Manila.

Waters of the United States.

The Great Lakes.

Lake Superior.—Lake Superior, the most westerly of the great lakes, is the largest body of fresh water in the world. In addition to the rivers Nipigon, St. Louis and Pigeon, it receives its waters from 200 rivers, draining an aggregate of 84,000 square miles, including its own area of 32,000. Its length is 390 miles, its greatest breadth 160 miles, its mean breadth 80 miles, its depth is 900 feet and its height above sea level 600 feet. Its coast is, for the most part, rock-bound. In the northern part especially it is dotted with many islands, rising sheer from deep water to great heights—some in the form of granite peaks as high as 1,300 feet. In the rocks of the northern shore are found silver, copper and iron ores. The United States side is lower and more sandy and is especially rich in deposits of native copper and iron ore. The lake is subject to severe storms and the effect of the waves on the "picture rocks" (sandstone) of Grand Island, presents innumerable and very fantastic forms. The lake never freezes over, but cannot be navigated with safety in winter on account of the shore ice. The St. Mary's River, fifty-five miles long, is its outlet to Lake Huron. The fall between the two lakes is 22 feet, 18 of which are at St. Mary's falls, or rapids. These are overcome commercially by means of a canal, which renders possible the passage of vessels of 16 feet draft from Lake Superior to Lake Huron.

Lake Huron.—Huron is 270 miles long, 105 miles broad and has an area of 23,000 square miles. Its drainage area, including its own, is 74,000 square miles. Its depth varies from 700 to 1,000 feet and its altitude above the sea is 574 feet. Georgian Bay, on the northwest, is entirely in Canada, while Thunder and Saginaw Bays on the west and southwest, are within the State of Michigan. The north and northeast shores of Lake Huron are mostly of sandstone and limestone, and where metamorphic rocks exist, there are broken hills rising to 600 feet above the lake. The southern and southwestern shores are comparatively flat and fertile. As with Lake Superior, regular terraces, corresponding to former water-levels of the lake, run for miles along the shores of Huron, at heights of 120, 150 and 200 feet, and deposits of sand and clay containing fresh water shells rise to a height of 40 feet or more above the present level of the lake. Its chief tributaries from the United States side are Thunder Bay and river, the Au Sable and the Saginaw.

Lake Michigan.—Lake Michigan is entirely in the territory of the United States. It has a maximum breadth of 84 miles and its length is 345 miles from the northeast corner of Indiana and the north of Illinois to Mackinaw, where it communicates with Lake Huron by a strait four miles wide at its narrowest part. The depth of Lake Michigan varies from 700 to 1,800 feet and its altitude above sea level is 578 feet. Its basin is 70,000 square miles in area, of which the lake itself occupies 22,400 square miles. Its five main tributaries are from 135 to 245 miles in length. The country around Lake Michigan is, for the most part, low and sandy. The rocks are of limestone and sandstone, lying in horizontal strata and never rising into bold cliffs. Along the south shore are post-tertiary beds of clay and sand lying but a few feet above the level of the lake, and indicating that its waters may have found, at one time, their exit into the valleys of the Illinois and Mississippi Rivers. The harbors of Lake Michigan and, indeed, for all the great lakes, are mostly of artificial construction, consisting of cribs, or boxes, sunken with stone, upon which piers are erected.

Lake Erie.—The St. Lawrence leaves Lake Huron by way of the St. Clair River at Sarnia, and after a course of 33 miles enters Lake St. Clair. 25 miles long and terminating at the head of the Detroit River, near the city of Detroit, Mich. Eighteen miles further on, and with a descent of 11 feet, the St. Lawrence enters Lake Erie. The peculiar features of Lake Erie are it shallowness, and the lowness and clayey nature of its shores. The south shore is bordered by an elevated plateau through which the rivers have cut deep channels. The maximum depth of the lake is 204 feet, and its mean depth 90 feet. It is the most dangerous of all the great lakes to navigate. Its length is 250 miles and greatest breadth 60 miles. Its area is 10,000 square miles and that of its basin, including the lake, 39,680 square miles. Its waters are 564 feet above the sea level and 330 feet above Lake Ontario. It has an average annual rise and fall of a little over one foot.

Lake Ontario.—The Niagara River drains Lake Erie, in a northerly direction, into Lake Ontario. This river falls 20 feet in a course of 16 miles from Lake Erie. Then comes a mile of rapids, in which it falls 52 feet. The rapids end in Niagara Falls, whose sheer descent is 164 feet on the American side. In seven miles below the falls the river descends 104 feet through a gorge 300 feet deep by 600 to 1,200 wide. Then the river suddenly expands to great width, and 57 miles further on flows tranquilly into Lake Ontario, the easternmost of the great lakes. Its surface contains 6,700 square miles and its basin 29,760. Its greatest length is 190 miles, width 52 miles, depth 412 feet. Its height above the sea is 234 feet. It never freezes except near the shore. Its chief tributaries on the American side are the Genesee and Oswego.

Other Lakes in the United States.

Location by States and Size.

Minimum length mentioned, 3 miles. To read the figures after each lake—example: 8 x 4, read eight miles long by four miles wide.

Arizona.—Dry Lake, Apache Co., 4x2; Laguna, Yuma Co., 3x½.

Arkansas.—Atkins Lake, Jefferson Co., 3x¼; Big Lake, Mississippi Co., 12x6; Buford, Mississippi Co., 4x2; Carson, Mississippi Co., 4x1; Chicot, Chicot Co., 22x1; Clear, Mississippi Co., 6x1; Crabtree, Miller Co., 3½x⅛; Davis, Desha Co., 3x¾; Flat, Mississippi Co., 4x1; Grand, Chicot Co., 7x¾; Kelly, Miller Co., 5x⅛; Comfort, Miller Co., 4x⅛; Tyronza, Mississippi Co., 6x3; Walker, Mississippi Co., 3½x2½; Long Lake, Phillips Co., 18x¼; Mason's Chicot Co., 6x1; Mud, Arkansas Co., 4x½; Noble, Jefferson Co., 5x½; Old Town Cypress, Phillips Co., 20x¼; Red, Hempstead Co., 5x½; Silver, Desha Co., 6x¾; Young's, Mississippi Co., 3x2.

California.—Alkali Chain, Modoc Co., 16x3; Bigler, Placer Co., 22x12; Blue, Lake Co., 3x1; Buena Vista, Kern Co., 12x8; Clear, Lake Co., 35x10; Clear, Modoc Co., 14x14; Eagle, Lassen Co., 13½x2; Fallen Leaf, Eldorado Co., 3x1; Goose, Kern Co., 4x2; Goose, Modoc Co., 60x12; Grass, Amador Co., 4x2; Honey, Lassen Co., 15x2; Horse, Lassen Co., 4x3; Kern, Kern Co., 8x4; George, Como Co., 3x1½; Mary, Mono Co., 3x2; Tahoe, Placer Co., 22x12; Lower, Modoc Co., 12x2½; Klamoth (Lower), Siskiyou Co., 20x12; Middle, Modoc Co., 20x2; Modoc, Modoc Co., 30x7; Mono, Mono Co., 15x11; Owen's, Inyo Co., 22x16; Silver, Amador Co., 3x2½; Silver, Eldorado Co., 3x1½; Tulare, Tulare Co., 24x18; Tule, Siskiyou Co., 25x1-10; Upper, Modoc Co., 16x3; West Twin, Mono Co., 4x3.

Connecticut.—Bantam Lake, Litchfield Co., 3½x1; Bolton, Tolland Co., 3x⅓; Gardner's, New London Co., 3x2; Miltonsball, New Haven Co., 3x⅜; Shenipsit, Tolland Co., 3½x¾; Waremang, Litchfield Co., 3½x¾.

Florida.—Ahapoka, Sumter Co., 18x16; Alligator, Brevard Co., 5x2; Apopka, Orange Co., 15x8; Apthorpe, Manatee Co., 3x2; Arbuckle, Polk Co., 5x2; Big Western, Washington Co., 3x2; Blue, Washington Co., 3x2; Brooklyn, Clay Co., 4x1½; Baffum, Polk Co., 3x1½; Chalo Apopka, Hernando Co., 15x1-3; Chipola, Calhoun Co., 16x1-3; Compass, Washington Co., 3x2; Crescent, Putnam Co., 14x4; Cypress, Jackson Co., 3x2; Cypress, Polk Co., 4x3; Dexter, Volusia Co., 5x1; Dora, Orange Co., 6x3; East Bay, Calhoun Co., 15x1-5; Eustis, Orange Co., 6x5; Francis, Manatee, Co., 4x3; George, Orange Co., 12x8; Grandin, Putnam Co., 5x2; Griffin, Sumter Co., 9x4; Hamilton, Polk Co., 3½x3; Hancock, Lake Co., 4x3; Harney, Volusia Co., 4x3; Harris, Sumter Co., 11x6; Hatchenshaw, Polk Co., 7x3; Iamona, Leon Co., 8x3; Istakpoga, Manatee Co., 8x6; Jackson, Leon Co., 9x3; Jesup, Orange Co., 15x5; Ker, Marion Co., 4x2½; Kissemee, Polk Co., 14x6; Lafayette, Leon Co., 6x1; Bryant, Marion Co., 4x4; Charm, Orange Co., 4x3; Como, Putnam Co., 3x1; Dunham, Sumter Co., 3x2; George, Putnam Co., 18x10; Louisa, Sumter Co., 5x3; Luffman, Brevard Co., 4x1; Levy's, Alachua Co., 4x3; Little George, Putnam Co., 3x2; Little Santa Fe, Bradford Co., 3½x2; Lochloosa, Alachua Co., 7x4; Marian, Polk Co., 3x2; Marianna, Brevard Co., 6x2; Miccosukee, Leoin Co., 7x3; Minmesla, Sumter Co., 5x2; Monroe, Orange Co., 12x5; Monroe, Volusia Co., 9x4; Norris, Orange Co., 6x4; Okeechobee, Dade Co., 40x30; Okliakonkonchee, Polk Co., 7x2; Orange, Marion Co., 11x6; Panasofka, Sumter Co., 5x2; Parke, Polk Co., 3½x2; Pierce, Polk Co., 5x3; Pithlachoco, Alachua Co., 5x3; Porter's Washington Co., 4x1; Rosalie, Polk Co., 3½x2½; Rudy, Polk Co., 3½x2; Sampson, Bradford Co., 3x3; Sandhill, Clay Co., 3x2; Santa Fe, Alachua Co., 8x4; Santa Fe, Bradford Co., 6½x3½; Smith, Clay Co., 6x3; South, Brevard Co., 6x1; Takopekaliga, Orange Co., 16x8; Tahoptalaga, Orange Co., 12x2-5; Tiger, Polk Co., 3x1½; Washington, Brevard Co., 4x1; Weir, Marion Co., 6x3; Winder, Brevard Co., 6x3; Worth, Dade Co., 18x2.

Idaho.—Bear Lake, Bear Lake Co., 20x5; Cœur d'Alene, Kootenai Co., 25x4; Fish, Kootenai Co., 6x½;John Gray, Oneida Co., 9x4; Kaniksu, Kootenai Co., 30x1-10; Pend d'Oreille, Kootenai Co., 65x4-6; Spirit, Kootenai Co., 5x1.

Illinois.—Big Grassy, Greene Co., 3x1½; Big, Jackson Co., 3½x2¾; Cade Lake, Greene Co., 3x½; Calumet, Cook Co., 3½x1¼; Chouteau, Madison Co., 5x¼; Dyson, Carroll Co., 3x½; Horseshoe, Madison Co., 10x1; Horseshoe, Alexander Co., 4x½; Breeze, Madison Co., 3x1½; Lima, Adams Co., 4½x2; Potato, Greene Co., 3x½; Little, Jackson Co., 3½x½; Long, Madison Co., 12x¼.

Indiana.—Cedar, Starke Co., 3½x¾; Clear, Steuben Co., 3x2; Crooked, Steuben Co., 3x1½; James, Steuben Co., 6x2; Mill Pond, Noble Co., 4x¼; Reservoir, Orange Co., 6x½; Tippecanoe, Kosciusko Co., 3x½; Turkey, Kosciusko Co., 8x1½;Twin, Marshall Co., 3x⅓.

Iowa.—Badger, Monona Co., 6x⅛; Blue, Monona Co., 7½x⅓; Cairo, Hamilton Co., 3x½; Clear, Cerro Gordo Co., 5x2; East Okoboji, Dickinson Co., 5x¾; Mud, Emmett Co., 3x1-1½; Sand Hill, Woodbury Co., 6x½; Silver, Monona Co., 3x⅓; Spirit, Dickinson Co., 4½x3½; Storm, Buena Vista Co., 4x2; Swan, Emmett Co., 7x1½; Trumbull, Palo Alto Co., 3¼x1; Well, Sac Co., 6x1; West Okoboji, Dickinson Co., 5½x3.

Louisiana.—Arthur, Calcasieu Par., 10x1-2; Bristineau, Bossier Par., 25x2; Black Bayou, Caddo Par., 45x⅓; Bodeau, Bossier Par., 11x½; Borgne, Orleans Par., 30x15; Catahoula, Rapides Par., 15x5; Catahoula, St. Martin Par., 3x¼; Chicot, St. Martin's Par., 5x2; Clear, Caddo Par., 6x2; Cocodra, Rapides Par., 10x1-4; Cross, Caddo Par., 15x1½; False River Lake, Pointe Coupee Par., 30x1; Ferry, Caddo Par., 15x3; Grand, Iberia Par., 25x12; Grand, St. Martin Par., 50x20; Indian, Calcasieu Par., 3x1; Jatt, Grant Par., 12x2; Arthur, Vermillion Par., 6x1½; Bigneur, Vermillion Par., 4x2; Catharine, Orleans Par., 3x2½; Maurepas, Livingston Par., 12x10; Moreau, Pointe Coupee Par., 4x4; Natchez, Iberville Par., 3⅓x1½; Nantachie, Grant Par., 4x1; (1) Old River, Pointe Coupee Par., 4x½; (2) Old River, Pointe Coupee Par., 37x1; Pearl, Avoyelles Par., 4x2; Palouide, Assumption Par., 6x6; Pontchartrain, 40x24; Round, St. Martin Par., 3x3; St. Agnes, Avoyelles Par., 3x½; Saline, Winn Par., 48x6; Sodo, Caddo Par., 12x2; Sykes, Webster Par., 5x⅓; Tasse, St. Martin Par., 6x2½; Verret, Assumption Par., 11x2½; Wallace, Caddo Par., 20x2; White, Vermillion Par., 12x8.

Maine.—Alligator, Hancock Co., 3¼x1¾; Baskahagan, Washington Co., 3½x3; Big, Washington Co., 12x2; Big Wilson Pond, Piscataquis Co., 5x3½; Boyden's, Washington Co., 3x1½; Caribou, Piscataquis Co., 5x3; Cathanes, Washington Co., 4x2½; Chain, Washington Co., 8x1½; Chain, Franklin Co., 40x3-5; Chamberlin, Piscataquis Co., 10x5; Chesuncook, Piscataquis Co., 18x3; Chimquassabamtook, Piscataquis Co., 6x3; Clifford, Washington Co., 3x2; Cold Stream Pond, Penobscot Co., 4½x3; Cranberry (3), Washington Co., 4x1; Crawford, Washington Co., 5x1; Cupsuptic, Franklin Co., 4x1½; Dexter Pond, Penobscot Co., 3x½; Eagle Lakes, Aroostook Co., each 14x2½; Endless Pond, Penobscot Co., 5x1¼; Fifth, Washington Co., 3½x1½; Fish River, Aroostook Co., 4x2½; Fourth, Washington Co., 4x1; Gardner (1), Washington Co., 7x2; Gardner (2), Washington Co., 5x2; Grand Tunck Pond, Hancock Co., 4x1; Hadley, Washington Co., 4½x1; Hebron Pond, Piscataquis Co., 3x1; Highland, Cumberland Co., 4x¾; Junior, Penobscot Co., 5x1; Onaway, Piscataquis Co., 4x1½; Long, Aroostook Co., 9x3; Long, Cumberland Co., 10x1; Long Pond, Washington Co., 3x¾; Long, Piscataquis Co., 3x1; Machias, Washington Co., 3x1; Mapang, Washington Co., 6x1; Mattawamkeag, Aroostook Co., 8x4; Medybemps, Washington Co., 8x2; Meluncas, Aroostook Co., 3x1¼; Millinokett, Penobscot Co., 6x4½; Molechunckamunk, Oxford Co., 6x3; Moosehead, Piscataquis Co., 40x20; Mooslucmaguntic, Oxford Co., 12x4; Musquash, Washington Co., 3x1; Nahmakauta, Piscataquis Co., 5x1½; Newport Pond, Penobscot Co., 4x2; Nicatous, Hancock Co., 8x3; Old Stream Lakes (3), Washington Co., 3½x1; Pamedumcook, Piscataquis Co., 6x2; Parmachene, Oxford Co., 5x3;Penamaquan, Washington Co., 3x1½; Pocomoonshine, Washington Co., 3½x2; Portage, Aroostook Co., 5x2½; Pushaw, Penobscot Co., 7x3; Ragged, Piscataquis Co., 3x1; Rangeley, Franklin Co., 5x3; Reed's Pond, Hancock Co., 6½x1½; Richardson, Oxford Co., 17x3; Ripogenus, Piscataquis Co., 3x1; Roach, Piscataquis Co., 7x2; Shin Pond, Penobscot Co., 3½x1; Sisladobsis, Penobscot Co., 8½x1½; Squawpan, Aroostook Co., 10x3; Telos, Piscataquis Co., 5x2; Third, Washington Co., 6x1; Toddy Pond, Hancock Co., 7½x1; Tunk Lakes, Washington Co., 3x1½; Twin, Penobscot Co., 7x3; Umbagog, Oxford Co., 12x3; Umsaskis, Aroostook Co., 5½x1¾; Upper, Aroostook Co., 7x1½; Wabasses, Washington Co., 4x1; Webb's Pond, Hancock Co., 3½x1; Weld Pond, Franklin Co., 5x2; Welokennabacook, Oxford Co., 5x3; West Maguerrowoc, Washington Co., 3x1; West

Musquash, Washington Co., 3½x2; Wilson Pond, Piscataquis Co., 3x1; Witteguerguacum, Washington Co., 12x3.

Massachusetts.—Berkshire, Berkshire Co., 3x¾; Chaubunagungamaug Pond, Washington Co., 3x1¼; Cochituate, Middlesex Co., 4x2; Cougamack, Hampden Co., 3½x½; Long Lake, Nantucket Co., 3x½; Mystic Pond, Middlesex Co., 3x1; Quinsiamond Pond, Worcester Co., 7x½; Spat Pond, Middlesex Co., 4x2; Spy Pond, Middlesex Co., 3x1; Watuppa Pond, Bristol Co., 9x1.

Michigan.—Agoleebic, Ontonagon Co., 16x8; Big Clam, Wexford Co., 3x3; Big Sable, Mason Co., 7½x1½; Black, Muskegon Co., 3x1½; Brevoort, Mackinac Co., 6x3; Carp, Ontonagon Co., 5x1; Carp, Mackinac Co., 3x1½; Carpe, Emmett Co., 4x2; Cedar, Alcona Co., 6x¾; Clam, Antrim Co., 4½x½; Coldwater (2), Branch Co., 3x2; Crooked, Emmett Co., 7x2; Crystal, Benzie Co., 9x2-3; Deer, Keweenaw Co., 3x1½; Devil, Alpena Co., 4½x⅓; Elk, Grand Traverse Co., 9x1½; George, Chippewa Co., 6x3; Grand, Presque Isle Co., 8x1½; Green, Benzie Co., 4x3; Green, Grand Traverse Co., 3x2; Gull, Kalamazoo Co., 4x1; Higgins, Roscommin Co., 7x5; Houghton, Roscommin Co., 17x7; Hubbard, Alcona Co., 7x2; Indian, Schoolcraft Co., 6½x4; Intermediate, Antrim Co., 6½x¾; Lincoln, Mason Co., 4½x⅓; Little Clam, Wexford Co., 3x1; Long, Presque Isle Co., 8x1; Long, Montgomery Co., 3x1; Long, Grand Traverse Co., 5½x2; Long, Alpena Co., 7½x1; Long, Clare Co., 3x1¼; Middle Manistique, Mackinac Co., 7x4; Milakokia, Mackinac Co., 4x2½; Mille Coquins, Mackinac Co., 5x2; Mud, Chippewa Co., 10x1; Muskegon, Muskegon Co., 6x3; Otsego, Otsego Co., 6x1; Paw Paw, Berrien Co., 3½x¾; Pine, Charlevoix Co., 15x3; Platte, Benzie Co., 5x3; Portage, Houghton Co., 5x2; Round, Kalkaska Co., 3x2; Sage, Ogemaw Co., 3x¾; St. Helen's, Roscommin Co., 7x2; Siscowit, Isle Royal Co., 7x1½; South Arm Pine, Charlevoix Co., 10x1; South Manistique, Mackinac Co., 6x2½; Sunday, Ontonagon Co., 5x2; Three Mile, Oakland Co., 3x½; Torch, Houghton Co., 5x1½; Torchlight, Antrim Co., 18x1½; Turtle, Montmorency Co., 3x2; Walloon, Charlevoix Co., 10x1; White, Muskegon Co., 6x1½.

Minnesota.—Albert Lea, Freeborn Co., 8x1; Alexander, Morrison Co., 5x2; Alley, Renville Co., 3x1; Annie, Beltrami Co., 3x1½; Artichoke, Big Stone Co., 4x2; Bald Eagle, Ramsay Co., 3x2; Ball Club, Itasca Co., 7x1½; Bass, Itasca Co., 6x1½; Battle, Otter Tail Co., 6x2½; Bay, Crow Wing Co., 5x3; Bear, Murray Co., 6x2; Bemidje, Beltrand Co., 6x2½; Big Marine, Washington Co., 4x2¼; Big Stone, Big Stone Co., 35x2; Birch-bark, Stearns Co., 3x2; Boon, Renville Co., 4x1½; Bowstring, Itasca Co., 6x5; Boy, Itasca Co., 8x3; Carlos, Douglas Co., 5x1; Cass, Cass Co., 15x8; Cedar, Martin Co., 3x1; Chippewa, Douglas Co., 5x1½; Chicago, Chicago Co., 7½x5¾; Christiana, Douglas Co., 5x2; Clear, Stearns Co., 3x2; Clearwater, Wright Co., 5x2; Clitherall, Otter Tail Co., 3½x2½; Cormorant, Becker Co., 5x4; Cormorant, Grant Co., 4x2; Crooked, Cass Co., 6x2; Cross, Cass Co., 8x5; Cross, Pine Co., 5x¾; Dead, Otter Tail Co., 8½x3½; Deer, Itasca Co., 5x1½; Detroit, Becker Co., 4x2; East Battle, Otter Tail Co., 3½x3; Elbow, Hubbard Co., 5x¾; Elbow, Grant Co., 3x½; Elk, Grant Co., 3x½; Emerson, Brown Co., 6x2; Fairy, Todd Co., 3x1; Foot, Kandiyohi Co., 3x1; Forest, Washington Co., 5x¾; Fox, Martin Co., 3½x¾; Freeborn, Freeborn Co., 3x1½; Geneva, Freeborn Co., 5x2; Green, Chicago Co., 3½x2½; Green, Kandiyohi Co., 4x3½; Griffin, Big Stone Co., 3x1½; Gull, Cass Co., 12x8; Gun-Flint, Cook Co., 10x2½; Hanska, Brown Co., 8x½; Height-of-land, Becker Co., 4x2; Heron, Jackson Co., 11x3; Hummel's, Brown Co., 4x3; Ida, Douglas Co., 5x2; Kabekona, Cass Co., 3x2; Koronis, Stearns Co., 4½x3; Lac-qui-Parle, Lac-qui-Parle Co., 14x1½; L'Hommedieu, Douglas Co., 3x2; Benton, Lincoln Co., 9x1½; Emily, Pope Co., 4x1; Minnetonka, Hennepin Co., 16x1-5; Sarah, Murray Co., 4½x1½; Shaokatan, Lincoln Co., 5x2; Shetak, Murray Co., 10x2; Lesch, Cass Co., 30x16; Lida, Otter Tail Co., 6x3½; Little Kandiyohi, Kandiyohi Co., 3x2; Long, Crow Wing Co., 6x4; Long, Morrison Co., 3x2; Maple, Polk Co., 9x¾; Mary, Douglas Co., 3x2; Micha, Beltrami Co., 3x1½; Mille Lacs, Mille Lacs Co., 20x15; Mille, Morrison Co., 20x20; Miltona, Douglas Co., 6x3; Moose, Cook Co., 4x1½; Mountain, Cook Co., 7x2½; New Auburn, Sibley Co., 3x1; Norway, Kandiyohi Co., 4x2½; Ocheeda, Nobles Co., 7x1½; Oliver, Swift Co., 3½x½; Osakis, Todd and Douglas Co's., 10x3; Oscar, Douglas Co., 4x3; Otter Tail, Otter Tail Co., 9x3; Pelican, Cass Co., 10x5; Pelican, Wright Co., 3x2½; Pelican, Otter Tail Co., 5½x2½; Pepin, Goodhue Co., 30x3; Perch, Carlton Co., 3x1; Pine, Otter Tail Co., 5½x2; Pokegamma, Cass Co., 12x5; Pokegamma, Pine Co., 4x1; Pomme de Terre, Grant Co., 3½x1; Red, Beltrami and Kittson Cos., 60x35; Red Rock, Douglas Co., 3x2; Rice, Freeborn Co., 3x1; Rice, Todd Co., 3x1; Rice, Beltrami Co., 15x4; Rush, Chicago Co., 5½x3; Rush, Otter Tail Co., 5x2½; Saganaga, Cook and Lake Cos., 28x8; Sandy, Itasca Co., 6x2½; Sauk, Stearns and Todd Cos., 10x1; Serpent, Crow Wing Co., 4x3; Shell, Becker Co., 4x2; Slomans, Morrison Co., 3x2; Spider, Itasca Co., 3x1; Spirit, Otter Tail Co., 3x1; Spunk, Stearns Co., 4x1; Star, Otter Tail Co., 5½x3; Swan, Nicollet Co., 7½x3½; Swan, Todd Co., 4x1; Swan, Itasca Co., 4x2; Tamarac, Becker Co., 4x1; Ten-Mile, Cass Co., 10x2; Ten-Mile, Otter Tail Co., 4x1½; Ten-Mile, Lac-qui-Parle Co., 3x½; Tetouka, Le Sueur Co., 4x1; Thief, Beltrami Co., 3x½; Toad, Becker Co., 3x1; Toqua, Big Stone Co., 3x1; Traverse, Traverse Co., 25x2; Trout (1), Itasca Co., 5x1½; Trout (2), Itasca Co., 3x1½; Turtle, Otter Tail Co., 5x3½; Tuttle, Martin Co., 3½x1; Union, Polk Co., 3½x¾; Upper, Beltrami Co., 3x½; Vacanga, Kandiyohi Co., 4½x1; Victoria, Douglas Co., 3x1; Wahbynew, Itasca Co., 3x1½; Washington, La Sueur Co., 6x4; Waverly, Wright Co., 3x1½; Whipple, Pope Co., 12x2; White Bear, Ramsay Co., 4½x3½; White Bear, Washington Co., 3½x2½; Whitefish, Cass Co., 12x10; Winnebagashish, Cass Co., 12x10.

Missouri.—Big, Penobscot Co., 6x2½; Cooper, Pemiscot Co., 4x3; Eastwood, Pemiscot Co., 4x2; Niccormy, Dunklin Co., 6x1; Pemiscot, Pemiscot Co., 6x4½; Tanner's, Pemiscot Co., 3x2.

Montana.—Ashley, Missoula Co., 5x½; Flat Head, Missoula Co., 28x10; Red Rock, Madison Co., 8x1½.

Nebraska.—Dad's, Cherry Co., 3½x1½; Moon, Brown Co., 4x1.

Nevada.—Alkali, Roop Co., 80x10; Crook, Roop Co., 3x1; Duck, Roop Co., 3x1; Forty-Nine, Roop Co., 10x3; High Rock, Roop Co., 7x1; Humboldt, Humboldt Co., 15x7; Massacre, Roop Co., 3x1; Middle, Roop Co., 7x3; Pyramid, Washoe Co., 40x15; Pyramid, Roop Co., 45x8; Summit, Humboldt Co., 3x1; Walker, Esmeralda Co., 33x20; Washoe, Washoe Co., 6x3; West, Roop Co., 4x3; Winnemucca, Roop Co., 32x5; Winnemucca, Washoe Co., 30x10.

New Hampshire.—Connecticut, Coos Co., 5x4; Goose Pond, Grafton Co., 3x1; Muscoma, Grafton Co., 5x1½; Second, Coos Co., 3x1½; Tarleton, Grafton Co., 3x1; Winnepiseogee, Belknap Co., 22x8; Winnesyoam, Belknap Co., 7x3.

New Jersey.—Green Pond, Morris Co., 3x1; Greenwood, Passaic Co., 9x1; Hopatcong, Morris Co., 7x3.

New York.—Ballston, Saratoga Co., 3x1; Black, St. Lawrence Co., 20x2; Blue Mountain, Hamilton Co., 3½x2; Brant, Warren Co., 5x½; Buonaparte, Lewis Co., 5x3; Canandaigua, Ontario Co., 15x1½; Cayuga, Cayuga Co., 28x3½; Catlin, Essex Co., 3x½; Chautauqua, Chautauqua Co., 18x1-3; Chasy, Clinton Co., 3x1¼; Crooked, Yates Co., 18x1½; Cranberry, St. Lawrence Co., 9x3; Cross, Onondaga Co., 5x¼; Greenwood, Orange Co., 12x1; Champlain, Eastern N. Y., 125x1-15; George, Warren Co., 32x3; Long, Hamilton Co., 13x1-2; Lower Saranac, Franklin Co., 6x2; Oneida, Oneida Co., 20x4-7; Onondaga, Onondaga Co., 5x1; Otisco, Onondaga Co., 7x¾; Otsego, Otsego Co., 7½x1½; Owasco, Cayuga Co., 11x1½; Owazena, Madison Co., 3x1; St. Regis, Franklin Co., 4x½; Saratoga, Saratoga Co., 7x3; Schroon, Essex Co., 10x1½; Schuyler, Otsego Co., 5x1½; Seneca, Seneca Co., 36x2; Silver, Wyoming Co., 3x1; Skaneateles, Onondaga Co., 15x1½; Topper's, Hamilton Co., 6x2; Upper Chateaugay, Clinton Co., 3x1½; Upper Saranac, Franklin Co., 7x1; Utawara, Hamilton Co., 3x1; Yellow, St. Lawrence Co., 4x½.

North Carolina.—Alligator, Hyde Co., 7x3½; Mattamuskeet, Hyde Co., 20x5; Pungo, Washington Co., 3½x2; Scuppernong, Washington Co., 8x6.

North Dakota.—Antelope, McHenry Co., 5x½; Cottonwood, Burleigh Co., 3x2½; Devil's, Ramsay Co., 55x14½; Dry-Wood, Sisseton Reserve, 5x2½; Island, Rolette Co., 3x2½; Jim, Stutsman Co., 3½x½; Larrabee, Foster Co., 3½x1; Long, Burleigh Co., 13x2; Rice, Burleigh Co., 4x1½; Stuart, Rolette Co., 3x2; Traverse, Sisseton Reserve, 25x2.

Oregon.—Albert, Lake Co., 12x6; Christmas, Grant Co., 4x1½; Crater, Lake Co., 6x5; Goose, Lake Co., 42x9; Guano, Grant Co., 6x4; Harney, Grant Co., 40x20; Juniper, Grant Co., 15x3; Magoon, Grant Co., 5x3; Malheur, Grant Co., 30x15; Olive, Grant Co., 3x2; Silver, Lake Co., 6x4; Sumner, Lake Co., 15x6½; Tule, Lake Co., 16x6; Upper Klamath, Lake Co., 26x8; Warner's, Grant Co., 30x8; Whatumka, Grant Co., 3x2.

Pennsylvania.—Conneaut, Crawford Co., 4x1½; Cary, Wyoming Co., 3x1; Presque Isle Bay, Erie Co., 4x1½.

Rhode Island.—Hopkin's Pond, Washington Co., 4x2; Point Judith Pond, Washington Co., 5x1.

South Dakota.—Albert, Grant Co., 3x1; Andes, Charles Mix Co., 10x½; Big Stone, Grant Co., 32x1¼; Budge, Kingsbury Co., 4x2; Byron, Beadle Co., 3x½; Kampeska, Codington Co., 5x2½; Cottonwood, Codington Co., 3x1; Herman, Lake Co., 4x2; Madison, Lake Co., 7x2½; Pelican, Codington Co., 5x1½; Poinsett, Hamlin Co., 5½x3; Preston, Kingsbury Co., 7x2; Red, Brule Co., 5½x2½; Swan, Walworth Co., 6x2; Tchanchicaha, Brown Co., 3½x2; Thompson, Kingsbury Co., 6x3; Twin, Codington Co., 6x1½; White, Aurora Co., 5x1½; Whitewood, Kingsbury Co., 8x1½.

Texas.—Austin, Matagoida Co., 6x1¾; Caddo, Marion Co., 25x15; Ferry, Marion Co., 5x3;

Green, Calhoun Co., 3x2½; Moon, Marion Co., 3x1½; Oyster, Matagorda Co., 3½x1; Powder Horn, Calhoun Co., 5x1.

Utah.—Bear, Utah and Idaho Cos., 21x7; Clear, Millard Co., 4x2; Fish, Millard Co., 4x1; Great Salt, Salt Lake Co., 83x40; Little Salt, Iron Co., 8x1; Sevier, Millard Co., 20x10; Utah Co., 30x12.

Vermont.—Bomaseen, Rutland Co., 8x2; Caspian, Orleans Co., 3x1; Champlain, Eastern Vt., 125x1-15; Danmore, Addison Co., 5x1; Memphremagog, Orleans Co., 33x2-4; Seymour, Orleans Co., 4x2; Willoughby, 6x1½.

Virginia.—Drummond Lake, Norfolk Co., 8x5.

Washington.—American, Pierce Co., 5x1; Washington, King Co., 22½x4; Owhap, Pierce Co., 3x1; Quinaiult, Chehalis Co., 14x4; Rock, Whitman Co., 8x½; Sammamish, King Co., 7½x1½; Samish, Whatcom Co., 3½x½; Whatcom, Whatcom Co., 11x1.

Wisconsin.—Bass, Sawyer Co., 4x1; Bear, Barron Co., 4½x1; Beaver Dam, Barron Co., 5x½; Beaver Dam, Dodge Co., 10x1-3; Big Sand, Burnett Co., 3x1½; Butte de Morts, Winnebago Co., 5½x2½; Cedar, Barron Co., 7x1½; Chaqua, Sawyer Co., 4x3; Clam, Burnett Co., 3½x2; Court Oreilles, Sawyer Co., 7x5; Desert, Wis. and Mich. 3¾x3; Eagle Chain, Lincoln Co., 25x1; Fence, Lincoln Co., 3½x2½; Fish, Sawyer Co., 3x1½; Flat, Sawyer Co., 3x1; Fox, Dodge Co., 3x2; Geneva, Walworth Co., 8x2; Green, Green Lake Co., 9x1½; Grindstone, Sawyer Co., 4x3; Hoshkonong, Jefferson Co., 9x6; Kegonsa; Dane Co., 4x2½; Labelle, Waukesha Co., 3½x1½; Mendota, Dane Co., 9x5; Winnebago, Winnebago Co., 29x12; Pepin, Pepin Co., 20x3; Monona, Dane Co., 4x2; Poygan, Winnebago Co., 9x5; Little Butte des Morts, Winnebago Co., 3x1; Long, Chippewa Co., 6x1½; Lost, Sawyer Co., 3x2; Mindemoga, Sawyer Co., 3x1; Mud, Dodge Co., 3½x1; Mud, Burnette Co., 4x2; Nokwebay, Marinette Co., 3½x2; Pelican, Lincoln Co., 3½x3; Pewaukee, Green Lake Co., 5¾x1½; Plum, Lincoln Co., 3¾x1½; Post, Langlade Co., 4x½; Prairie, Barron Co., 3½x½; Puckoway, Green Lake Co., 7½x1½; Rock, Jefferson Co., 3x2; Rush, Winnebago Co., 4½x2; Sand, Forest Co., 3x1¼; Shawano, Shawano Co., 7x3; Somo, Lincoln Co., 3x½; Spider, Sawyer Co., 4x4; Spread Eagle, Florence Co., 3x1; Squirrel, Lincoln Co., 4x1½; Stone, Forest Co., 3½x¾; Tomahawk, Lincoln Co., 5x2½; Trout, Lincoln Co., 5x2¾; Twin, Forest Co., 5x1½; Upper St. Croix, Douglas Co., 4x¾; White Potato, Oconto Co., 3x1⅓; Winneconne, Winnebago Co., 3x3.

IMPORTANT RIVERS OF THE UNITED STATES.

LOCATION, RISE, LENGTH, EXIT.

NAME.	LOCATION.	SOURCE.	LENGTH. (Miles.)	MOUTH.
Alabama	Alabama	Alabama	210	Mobile River.
Alleghany	Pennsylvania	Alleghany Mountains	400	Monongahela River.
Altamaha	Georgia	Georgia	140	Atlantic Ocean.
American	California	California	30	Sacramento River.
Androscoggin	New Hampshire and Maine	New Hampshire	140	Kennebec River.
Apalachicola	Florida	Florida	90	Gulf of Mexico.
Appomattox	Virginia	Virginia	120	James River.
Arkansas	Utah and Colorado	Rocky Mountains	2170	Mississippi River.
Aroostook	Maine	Maine	120	St. John's River.
Bear	Utah	Lat. 41°	400	Great Salt Lake.
Big Black	Mississippi	Mississippi	200	Mississippi River.
Big Horn	Wyoming	Yellowstone Park	400	Yellowstone River.
Big Sandy	Tennessee	Tennessee	80	Tennessee River.
Big Sioux	Dakota	Dakota	150	Niobrara River.
Bitter Root	Montana	Rocky Mountains	110	Clarke's Fork.
Black	Arkansas, Missouri	Missouri	375	White River.
Black	New York	New York	125	Ontario Lake.
Black Warrior	Alabama	Alabama	150	Tombigbee River.
Blue	Kansas	Kansas	150	Kansas.
Brazos	Texas	Texas	900	Gulf of Mexico.
Barnt	Oregon	Oregon	100	Snake River.
Cahawba	Alabama	Alabama	100	Alabama River.
Calfpasture	Virginia	Virginia	100	James River.
Cape Fear	North Carolina	Haw and Deep Rivers	200	Atlantic Ocean.
Carson	Nevada	Sierra Nevada Mountains	150	Carson Lake.
Catawba	North and South Carolina	Blue Ridge	250	Santee River.
Charibou	Iowa and Missouri	Iowa	250	Missouri River.
Chattahoochee	Georgia and Alabama	Georgia	550	Apalacola River.
Cheap	West Virginia	West Virginia		Monongahela River.
Chelalem	Oregon	Oregon:	125	Gray's Harbor.
Chenango	New York	New York	90	Susquehanna River.
Chippewa	Wisconsin	Wisconsin	200	Mississippi River.
Choptank	Delaware and Maryland	Delaware	100	Chesapeake Bay.
Clarion	Pennsylvania	Pennsylvania	130	Alleghany River.
Clarke's	Washington	Rocky Mountains	650	Columbia River.
Clinch	Virginia and Tennessee	Virginia	200	Tennessee River.
Colorado	Texas	San Saba Mountains	900	Matagorda Bay.
Colorado	Utah, Wyoming, California	Utah	200	Gulf of California.

IMPORTANT RIVERS OF THE UNITED STATES—(Continued).

NAME.	LOCATION.	SOURCE.	LENGTH. (Miles.)	MOUTH.
Columbia	Oregon, Washington	Rocky Mountains	1400	Pacific Ocean.
Congaree	South Carolina	Saluda and Broad	50	Wateree River.
Connecticut	Vermont, New Hampshire, Mass.	Canada border	410	Long Island Sound.
Coosa	Georgia and Alabama	Georgia	350	Tallapoosa River.
Cottonwood	Kansas	Kansas	100	Neosho River.
Cumberland	Tennessee	Cumberland Mountains	600	Ohio River.
Current	Missouri and Arkansas	Missouri	350	Black River.
Dakota or James	Dakota	Devil's Lake	400	Missouri River.
Dan	Virginia and North Carolina	Virginia	200	Staunton River.
Delaware	New York, Pennsylvania and Del.	Catskill Mountains	350	Atlantic Ocean.
Des Chutes	Oregon	Cascade Mountains	250	Columbia River.
Des Moines	Minnesota and Iowa	Minnesota	500	Mississippi River.
Des Plaines	Illinois	Illinois	160	Kankakee River.
Detroit	United States and Canada	Lake St. Clair	25	Lake Erie.
Duck	Tennessee	Cumberland Mountains	250	Tennessee River.
Edisto	South Carolina	South Carolina	100	Atlantic Ocean.
Eel	Indiana	Indiana	100	White River.
Elk	West Virginia	West Virginia	150	Great Kanawha River.
Elkhart	Indiana	Indiana	100	St. Joseph River.
Elkhorn	Nebraska	Nebraska	120	Platte River.
Feather	California	California	180	Sacramento River.
Flathead (Clarke's Fork)	Washington	Rocky Mountains	650	Columbia River.
Flat Rock	Indiana	Indiana	100	White River.
Flint	Georgia	Georgia	300	Chattahoochee.
Forked Deer	Tennessee	Tennessee	300	Mississippi River.
Fox	Wisconsin	Wisconsin	200	Green Bay.
Fox	Wisconsin and Illinois	Wisconsin	200	Illinois River.
Gallatin	Montana	Montana	125	Jefferson River.
Gasconada	Missouri	Missouri	250	Missouri River.
Genesee	Pennsylvania and New York	Pennsylvania	145	Lake Ontario.
Gila	New Mexico	Sierra Madre	450	Colorado River.
Grand	Michigan	Michigan	270	Lake Michigan.
Grande	United States and Mexico	Rocky Mountains	1650	Gulf of Mexico.
Grande Rona	Oregon	Blue Mountains	100	Snake River.
Great Kanawha	North Carolina and West Virginia	North Carolina	400	Ohio River.
Great Pedee (Yadkin)	North and South Carolina	North Carolina	375	Atlantic Ocean.
Green	Kentucky	Kentucky	300	Ohio River.
Green	Wyoming	Yellowstone Park	500	Colorado River.
Guadalupe	Texas	Texas	250	Esp. Santo Bay.
Hockhocking	Ohio	Ohio	80	Ohio River.
Holston	Virginia and Tennessee	Virginia	200	Tennessee River.
Housatonic	Massachusetts and Connecticut	Massachusetts	150	Long Island Sound.
Hudson	New York	Lat. 44°	280	Atlantic Ocean.
Humboldt	Utah	Humboldt Mountains	350	Humboldt Lake.
Huron	Michigan	Michigan	90	Lake Erie.
Illinois	Illinois	Illinois	350	Mississippi River.
Iowa	Iowa	Iowa	300	Mississippi River.
Iroquois	Indiana and Illinois	Indiana	100	Kankakee River.
Jackson	Virginia	Virginia	100	James River.
James	Virginia	Virginia	450	Chesapeake Bay.
John Days	Oregon	Blue Mountains	250	Columbia River.
Juniata	Pennsylvania	Pennsylvania	150	Susquehanna River.
Kalamazoo	Michigan	Michigan	200	Lake Michigan.
Kanawha	West Virginia	Alleghany Mountains	400	Ohio River.
Kansas	Kansas	Kansas	400	Missouri River.
Kaskaskia	Illinois	Illinois	300	Mississippi River.
Kennebec	Maine	Moosehead Lake	150	Atlantic Ocean.
Kentucky	Kentucky	Cumberland Mountains	250	Ohio River.
Klamath	Oregon and California	Klamath Lake	250	Pacific Ocean.
Laramie	Wyoming	Laramie Mountains	200	North Platte.
Lehigh	Pennsylvania	Pennsylvania	90	Delaware River.
Lewis Fork (Snake)	Idaho and Washington	Idaho	900	Columbia River.
Licking	Kentucky	Cumberland Mountains	200	Ohio River.
Malheur	Oregon	Blue Mountains	140	Snake River.
Manistee	Michigan	Michigan	150	Lake Michigan.
Maumee	Indiana	Indiana	180	Lake Erie.
Meherria	Virginia and North Carolina	Virginia	100	Nottaway River.
Merrimack	New Hampshire and Massachusetts	New Hampshire	150	Atlantic Ocean.
Milwaukee	Wisconsin	Wisconsin	90	Lake Michigan.
Minnesota	Minnesota	Near Dakota boundary	420	Mississippi River.
Mississippi	United States	Minnesota	2616	Gulf of Mexico.
Missouri	United States	Rocky Mountains	4194	Gulf of Mexico.
Mobile	Alabama	Tombigbee	50	Mobile Bay.
Mohawk	New York	New York	135	Hudson River.
Monocacy	Maryland	Maryland	50	Potomac River.
Monongahela	West Virginia and Pennsylvania	West Virginia	300	Alleghany River.
Muskegon	Michigan	Michigan	200	Lake Michigan.
Muskingum	Ohio	Ohio	110	Ohio River.
Nemaha	Nebraska	Nebraska	150	Missouri.
Neuse	North Carolina	North Carolina	250	Pamlico Sound.
Niagara	United States and Canada	Lake Erie	35	Lake Ontario.
Niobrara	Dakota and Nebraska	Nebraska	400	Missouri River.
Nottaway	Virginia and North Carolina	Virginia	110	Meherria.
Nueces	Texas	Texas	350	Gulf of Mexico.
Ockmulgee	Georgia	Georgia	200	Oconee River.
Oconee	Georgia	Georgia	250	Altamaha River.

IMPORTANT RIVERS OF THE UNITED STATES—(Continued).

NAME.	LOCATION.	SOURCE.	LENGTH. (Miles.)	MOUTH.
Ohio	Pa., Ohio, Ky., Ind., Ill.	Pittsburg, Pa.	950	Mississippi River.
Osage	Kansas and Missouri	Kansas	500	Missouri River.
Oswego	New York	New York	24	Lake Ontario.
Owghee	Oregon	Blue Mountains	200	Snake River.
Passaic	New Jersey	New Jersey	100	Newark Bay.
Pascagoula	Mississippi	Mississippi	110	Gulf of Mexico.
Passamaquoddy	Maine and New Brunswick	Maine	75	Passamaquoddy Bay.
Patapsco	Maryland	Maryland	80	Chesapeake Bay.
Pawtuxet	Maryland	Maryland	90	Chesapeake Bay.
Pearl	Mississippi	Mississippi	250	Gulf of Mexico.
Penobscot	Maine	Green Mountains	300	Penobscot Bay.
Piscataqua	New Hampshire	New Hampshire	80	Atlantic Ocean.
Platte (Nebraska)	Wyoming and Colorado	Wyoming and Colorado	1200	Missouri River.
Potomac	Maryland, Virginia, West Virginia	North Cumberland Mts.	400	Chesapeake Bay.
Powder	Oregon	Blue Mountains	200	Snake River.
Raritan	New Jersey	New Jersey	120	Atlantic Ocean.
Red Cedar	Minnesota and Iowa	Minnesota	300	Iowa River.
Red River and branches	Tex., Ind. Terr., Ark., La.	Texas	2100	Mississippi River.
Red River of North	Minn., Dak., B. N. A.	Minnesota	700	Lake Winnepeg.
Reese	Nevada	Nevada	100	No outlet.
Republican	Colorado, Kansas, Nebraska	Colorado	500	Kansas River.
Rio Grande	Mexico and United States	Colorado	1800	Gulf of Mexico.
Roanoke	Virginia and North Carolina	Virginia	250	Albemarle Sound.
Rock	Wisconsin and Illinois	Koshkonong Lake	350	Mississippi River.
Rogue	Oregon	Cascade Mountains	200	Pacific Ocean.
Russian	California	California	125	Pacific Ocean.
Sabine	Texas	Texas	500	Gulf of Mexico.
Saco	New Hampshire and Maine	New Hampshire	160	Atlantic Ocean.
Sacramento	California	California	370	Suisin Bay.
Saginaw	Michigan	Michigan	30	Saginaw Bay.
St. Clair	Michigan and Canada	Lake Huron	40	Lake St. Clair.
St. Croix	Wisconsin and Minnesota	Wisconsin	200	Mississippi River.
St. Francis	Missouri and Arkansas	Missouri	450	Mississippi River.
St. John's	Florida	Florida	200	Atlantic Ocean.
St. Joseph	Michigan	Michigan	250	Lake Michigan.
St. Lawrence	United States and Canada	Lake Ontario	750	Gulf of St. Lawrence.
St. Louis	Minnesota	Minnesota	200	Lake Superior.
Ste. Marie	Michigan and Canada	Lake Superior	62	Lake Huron.
St. Mary's	Georgia and Florida	Georgia	100	Atlantic Ocean.
Saline	Arkansas	Arkansas	200	Washita River.
Saluda	South Carolina	Blue Ridge Mountains	200	Broad River.
Sandy	West Virginia and Kentucky	West Virginia	50	Ohio River.
Sangamon	Illinois	Illinois	200	Illinois River.
San Joaquin	California	Sierra Nevada Mountains.	350	Bay of San Francisco
Santee	South Carolina	Blue Ridge Mountains	350	Atlantic Ocean.
Savannah	N. Carolina, S. Carolina, Georgia	North Carolina	450	Atlantic Ocean.
Scioto	Ohio	Ohio	200	Ohio River.
Schuylkill	Pennsylvania	Pennsylvania	120	Delaware River.
Sevier	Utah	Utah	200	Lake Sevier.
Shenandoah	Virginia	Virginia	170	Potomac River.
Sioux	Minnesota and Iowa	Minnesota	300	Missouri River.
Smoky Hill	Colorado and Kansas	Colorado	400	Kansas River.
Snake	Oregon and Washington	Rocky Mountains	950	Columbia River.
Solomon	Kansas	Kansas	300	Smoky Hill River.
Spokane	Idaho, Washington	Idaho	100	Columbia River.
Staunton	Virginia	Virginia	200	Roanoke River.
Sugar	Indiana	Indiana	100	Wabash River.
Susquehanna	New York, Penna., Maryland	New York	400	Chesapeake Bay.
Tallahatchee	Mississippi	Mississippi	250	Yazoo River.
Tallapoosa	Georgia and Alabama	Georgia	250	Coosa River.
Tar	North Carolina	North Carolina	140	Pamlico Sound.
Tennessee	Tenn., Ala., Miss., Ky	Tennessee	800	Ohio River.
Tippecanoe	Indiana	Indiana	200	Wabash River.
Tombigbee	Missouri and Alabama	Mississippi	450	Mobile River.
Tongue	Wyoming	Wyoming	300	Yellowstone River.
Trinity	Texas	Texas	550	Galveston Bay.
Umpqua	Oregon	Cascade Mountains	200	Pacific Ocean.
Verdigris	Kansas	Kansas	200	Arkansas River.
Vermilion	Dakota	Dakota	150	Missouri River.
Wabash	Ohio, Indiana, Illinois	Ohio	550	Ohio River.
Walla Walla	Oregon, Washington	Blue Mountains	75	Columbia River.
Wapsipinicon	Iowa	Iowa	200	Mississippi River.
Washita	Arkansas and Louisiana	Arkansas	500	Red River.
White	Indiana	Indiana	50	Wabash River.
White and Forks	Arkansas and Missouri	Ozark Mountains	800	Mississippi River.
White and Forks	Indiana	Indiana	350	Wabash River.
Whitewater	Missouri	Missouri	250	Big Lake.
Wild Rice	Minnesota	Minnesota	100	Red River of North.
Willametta	Oregon	Cascade Mountains	155	Columbia River.
Wisconsin	Wisconsin	V. Desert Lake	600	Mississippi River.
Wolf	Wisconsin	Wisconsin	150	Fox River.
Wolf	Mississippi and Tennessee	Mississippi	100	Mississippi River.
Yellowbusha	Mississippi	Mississippi	100	Yazoo River.
Yazoo	Mississippi	Mississippi	200	Mississippi River.
Yellowstone	Dakota, Wyoming, Montana	Yellowstone Lake	1000	Missouri River.
Yukon	Alaska	British Columbia	1800	Pacific Ocean.
Youghiogheny	West Virginia, Maryland, Penna.	West Virginia	150	Monongahela River.

NATIONAL and STATE AREAS

A Comprehensive View of the Making and Building of Our Country. Acquisitions by Purchase and Conquest. Divisions by States and Staple Products, etc.

TABULATED PHOTOGRAPH

OF

Our Country's Territorial Expansion

Its Natural and Political Divisions

SHOWING FROM OFFICIAL SOURCES, IN NEW AND READILY ACCESSIBLE FORM:

Territorial Growth since 1800
The Louisiana Purchase
Florida Purchase
Texas Annexation
Oregon Acquisition
Texas Purchase
Gadsden Purchase
Alaska Purchase
Hawaiian Acquisition
Porto Rico Cession
Philippine Conquest
Gross Area of U. S., at Twelve Census Periods
States Organized from Louisiana Purchase
States Organized from Mexican Cession
States Organized from Oregon Acquisition
Public Lands of U. S. Surveyed
Public Lands of U. S. Unsurveyed
Areas of States and Territories
Organization and Admission of States
Development of Public Lands
Highest Altitudes in each State
The Cotton Belt
The Corn and Winter Wheat Belt
The Spring Wheat Belt
The Wool and Stock Sections
The Pacific Coast States
The Mixed Farming and Manufacturing Sections
Principal National and Municipal Parks in the U. S.

An historic picture in figures equal to a library. Just what you are always wanting, and cannot find elsewhere without wading for a week.

National and State Areas.

Geographic Divisions of the United States, on the Basis of Its Staple Industries.

1. Mixed Farming and Manufacturing.—In New England, dairying, trucking and mixed farming have received their fullest development, and the same may be said of New York and parts of the other Middle States. The entire Northeast, including New England, New York and the leading Middle States, is also so largely engaged in manufacturing as to comprise what may be called the Manufacturing, or Industrial, Section of the United States. This group of States is, therefore, largely dependent upon the rest of the country for such raw material as the other sections supply.

2. The Cotton Belt.—The second division is conveniently designated as the Cotton Belt. It comprises all that country lying south of the thirty-seventh degree of latitude, and extending west as far as the western boundary of Texas. The whole section is primarily dependent upon cotton culture for its prosperity.

3. Corn and Winter Wheat Belt.—North of the former section and lying between the thirty-fifth and forty-third parallels of latitude, and extending to the western boundaries of Kansas and Nebraska, lies the third staple section, which may be called the Corn and Winter Wheat Belt of the United States. Within this belt the production of live-stock is a basic factor in agriculture. What may be called, by way of distinction, the Commercial Corn Belt—that is the belt upon which the rest of the country depends for its supply—embraces the States of Ohio, Indiana, Illinois, Iowa, Missouri, Nebraska and Kansas, lying in the very heart of the national territory.

4. Spring Wheat Belt.—North of the forty-third parallel of latitude and extending westward from the Great Lakes to the eastern boundary of Montana and Wyoming, lies the Spring Wheat Belt.

5. Wool and Live-Stock Section.—The States usually known as the Rocky Mountain States, comprising Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah and Nevada, are devoted to the production of wool and live-stock as fundamental industries of the section, though some of them constitute a group popularly mentioned as Mining States.

6. Pacific Coast States.—The Pacific Coast States, comprising California, Oregon and Washington, are still primarily agricultural. Wheat, barley, live-stock, timber and fruits constitute the basis of their prosperity.

This geographical grouping of the economic activities of the United States lies at the basis of its internal commerce. No one of the divisions is economically self-sufficing, and the characteristic industries of each determine the nature of its contributions to the internal commerce of the country.

TERRITORIAL GROWTH OF THE UNITED STATES SINCE 1800.

[*Prepared by General Land Office of the United States.*]

TERRITORIAL DIVISION.	Year.	Added Area, Square Miles.	Price.	TERRITORIAL DIVISION.	Year.	Added Area, Square Miles.	Price.
Louisana Purchase	1803	875,025	$15,000,000	Porto Rico	1898	3,600	....
Florida	1819	70,107	5,499,768	Pine Islands, West Indies	1898	882	back to Cuba
Texas	1845	389,795	....	Guam	1898	175	....
Oregon Territory	1846	288,689	....	Philippines	1899	143,000	$20,000,000
Mexican Cession	1848	523,802	18,250,000	Samoan Islands	1899	73	....
Purchase from Texas	1850	[1] 123,784	10,000,000	Other Philippines	1901	68	100,000
Gadsden Purchase	1853	36,211	10,000,000				
Alaska	1867	599,446	7,200,000	Total	......	2,937,613	$87,039,768
Hawaiian Islands	1897	6,740	....				

[1] Not added to the grand total because admitted as part of the State of Texas.

GROSS AREA OF THE UNITED STATES, EXCLUSIVE OF ALASKA AND HAWAII, AT EACH CENSUS.

CENSUS YEARS.	Gross Area in Square Miles.	CENSUS YEARS.	Gross Area in Square Miles.
1790	827,844	1850	2,980,959
1800	827.844	1860	3,025,600
1810	1,999,775	1870	3,025,600
1820	2,059,043	1880	3,025,600
1830	2,059,043	1890	3,025,600
1840	2,059,043	1900	3,025,600

STATES OF THE UNION ORGANIZED FROM ACQUIRED TERRITORY.

STATES AND TERRITORIES.	Date of Act of Organization as Territory.	Date of Act of Admission as State.	Population at Census next Following Admission.	Population by Census.		Area in Square Miles
				1890.	1900.	
LOUISIANA PURCHASE:						
Arkansas	March 2, 1819	June 15, 1836	97,574	1,128,179	1,311,564	53,045
Colorado	February 28, 1861	March 3, 1875	194,327	412,198	539,700	103,645
Indian Territory	....	....	....	180,182	391,960	31,000
Iowa	June 12, 1838	March 3, 1845	192,214	1,911,896	2 231,853	55,475
Kansas	May 30, 1854	January 29, 1861	107,206	1,427,096	1,470,495	81,700
Louisiana	March 3, 1805	April 8, 1812	76,556	1,118,587	1,381,625	45,420
Minnesota	March 3, 1849	May 11, 1858	172,023	1,301,826	1,751,394	79,205
Missouri	June 4, 1812	March 2, 1821	66,557	2,679,184	3,106,665	68,735
Montana	May 26, 1864	February 22, 1889	132,159	132,159	243,329	145,310
Nebraska	May 30, 1854	February 9, 1867	122,993	1,058,910	1,068,539	76,840
North Dakota	March 2 1861	February 22, 1889	182,719	182,719	319,146	70,195
Oklahoma	May 2, 1890	....	....	61,834	398,245	38,830
South Dakota	March 2, 1861	February 22, 1889	328,808	328,808	401,570	76,850
Wyoming	July 25, 1868	July 10, 1890	60,705	60,705	92,531	97,575
Total	....	....	....	11,984,283	14 708,616	1,023,825
MEXICAN CESSION:						
Arizona	February 24, 1863	....	....	59,620	122,931	112,920
California	....	September 9, 1850	92,597	1,208,130	1,485,053	155,980
New Mexico	September 9, 1850	....	....	153,593	195,310	122,460
Nevada	March 2, 1861	March 21, 1864	42,491	45,761	42,335	109,740
Utah	September 9. 1850	July 16, 1894	207,905	207,905	276,749	82,190
Total	....	....	....	1,675,009	2,122,378	583,290
OREGON:						
Idaho	March 3, 1863	July 3, 1890	84,385	84,385	161,772	84,290
Oregon	August 14, 1848	February 14, 1859	52,465	313,767	413,536	94,560
Washington	March 2, 1853	February 22, 1889	349,390	349,390	518,103	66,880
Total	....	....	....	747,542	1,093,411	245 730
TEXAS	....	December 29, 1845	212,592	2,235,523	3,048,710	262,290
Grand total	....	....	....	16,642,357	20,973,115	2,115,135
Total United States	....	....	....	63,069,756	76,304,799	2,970,038

PUBLIC LANDS OF THE UNITED STATES, SURVEYED AND UNSURVEYED.

[*General Land Office Report.*]

STATES AND TERRITORIES.	Acres.	Square Miles.	No. of Acres Surveyed.	No. of Acres Unsurveyed.	STATES AND TERRITORIES.	Acres.	Square Miles.	No. of Acres Surveyed.	No. of Acres Unsurveyed.
Alabama	32.657,920	51,028	32.657,920	....	Nevada	70,336,640	109,901	36,793.765	33,542,875
Arkansas	33.543,680	52,412	33,543,680	....	N. Dakota	44,910,080	70,172	38,222,690	6,687,390
California	99.969.920	156,203	76,721,643	23,448,277	Ohio	26,062,720	40,723	26,062,720	....
Colorado	66,348,160	103,669	61,946,310	4,401,850	Oregon	61,277,440	95.746	46,058,414	15,219,026
Florida	35,072,640	54,801	30,835.559	4,237,081	S. Dakota	49,206,400	76,885	44,114,973	5,091,427
Illinois	35,842,560	56,004	35,842,560	....	Utah	52,541,440	82,096	19,080,408	33,461.032
Indiana	22,950,400	35,860	22,950,400	....	Wisconsin	35,274,880	55,117	35,274,880	....
Iowa	35,646,080	55,697	35,646,080	....	Washington	42,746,880	66,792	27,495,664	15 251.216
Idaho	53,293,440	83.271	19,182.221	34,111,219	Wyoming	62,433,280	97,552	54,373,346	8,059,934
Kansas	52,382,720	81,848	52,382,720	....	Alaska	368.103,680	575,162	2,236	368,101,444
Louisiana	29,055,360	45,399	27,175,212	1,880,148	Arizona	72,792,320	113,738	18,179,451	54,612.869
Michigan	36,819,200	57,530	36,819,200	....	Indian Ter	19,658,880	30,717	19,658.880	....
Minnesota	51,198,080	79,997	47,483,366	3,714,714	New Mexico	78,428,800	122,545	50.934,429	27,494,371
Mississippi	29,685,120	46,383	29,685,120	....	Oklahoma	24,774,400	38,710	24,695,192	79,208
Missouri	43,795,840	68,431	43,795,840	....					
Montana	93,593,600	146,240	33,939,743	59,653,857	Total	1,809,539,840	2,827,406	1,110,642,478	698,897.362
Nebraska	49,137,280	76,777	49,087,856	49,424					

AREA OF EACH STATE AND TERRITORY, DATES OF ORGANIZATION AND ADMISSION INTO THE UNION.

[*From Report of Commissioner of General Land Office, and Census of* 1900.]

STATES AND TERRITORIES		Date of Act of Organization or Admission.	United States Statutes.		AREA.			
			Vol.	Page.	Water.	Land.		Total
ORIGINAL STATES.					Square Miles.	Square Miles.	Acres.	Square Miles.
New Hampshire					300	9,005	5,763,200	9,305
Massachusetts					275	8,040	5,145,600	8,315
Rhode Island					197	1,053	673,920	1,250
Connecticut					145	4,845	3,100,800	4,990
New York					1,550	47,620	30,476,800	49,170
New Jersey					290	7,525	4,816,000	7,815
Pennsylvania					230	44,985	28,790,400	45,215
Delaware					90	1,960	1,254,400	2,050
Maryland					2,350	9,860	6,310,400	12,210
Virginia					2,325	40,125	25,680,000	42,450
North Carolina					3,670	48,580	31,091,200	52,250
South Carolina					400	30,170	19,308,800	30,570
Georgia					495	58,980	37,747,200	59,475
STATES ADMITTED.								
Kentucky		February 4, 1791	1	189	400	40,000	25,600,000	40,400
Vermont		February 18, 1791	1	191	430	9,135	5,846,400	9,565
Tennessee		June 1, 1796	1	491	300	41,750	26,720,000	42,050
Maine		March 3, 1820	3	544	3,145	29,895	19,132,800	33,040
Texas		December 29, 1845	9	108	3,490	262,290	167,865,600	265,780
West Virginia		December 31, 1862	12	633	135	24,645	15,772,800	24,780
PUBLIC LAND STATES ADMITTED								
Ohio	State	April 30, 1802	2	173	300	40,760	26,086,400	41,060
Louisiana	Territory	March 3, 1805	2	331	3,300	45,420	29,068,800	48,720
	State	April 8, 1812	2	701				
Indiana	Territory	May 7, 1800	2	58	440	35,910	22,982,400	36,350
	State	December 11, 1816	3	399				
Mississippi	Territory	April 7, 1798	1	549	470	46,340	29,657,600	46,810
	State	December 10, 1817	3	472				
Illinois	Territory	February 3, 1809	2	514	650	56,000	35,840,000	56,650
	State	December 3, 1818	3	536				
Alabama	Territory	March 3, 1817	3	371	710	51,540	32,985,600	52,250
	State	December 14, 1819	3	608				
Missouri	Territory	June 4 1812	2	743	680	68,735	43,990,400	69,415
	State	March 2, 1821	3	645				
Arkansas	Territory	March 2, 1819	3	493	805	53,045	33,948,800	53,850
	State	June 15, 1836	5	50				
Michigan	Territory	January 11, 1805	2	309	1,485	57,430	36,755,200	58,915
	State	January 26, 1837	5	144				
Florida	Territory	March 30, 1822	3	654	4,440	54,240	34,713,600	58,680
	State	March 3, 1845	5	742				
Iowa	Territory	June 12, 1838	5	235	550	55,475	35,504,000	56,025
	State	March 3, 1845	5	742				
Wisconsin	Territory	April 20, 1836	5	10	1,590	54,450	34,848,000	56,040
	State	May 29 1848	9	178				
California	State	September 9, 1850	9	452	2,188	156,172	99,827,200	158,360
Minnesota	Territory	March 3, 1849	9	403	4,160	79,205	50,691,200	83,365
	State	May 11, 1858	11	166				
Oregon	Territory	August 14 1848	9	323	1,470	94,560	60,518,400	96,030
	State	February 14, 1859	11	383				
Kansas	Territory	May 30, 1854	10	277	380	81,700	52,288,000	82,080
	State	January 29, 1861	12	126				
Nevada	Territory	March 2, 1861	12	209	960	109,740	70,233,600	110,700
	State	March 21, 1864	13	30				
Nebraska	Territory	May 30, 1854	10	277	670	76,840	49,177,600	77,510
	State	February 9, 1867	14	391				
Colorado	Territory	February 28, 1861	12	172	280	103,645	66,332,800	103,925
	State	March 3, 1875	18	474				
North Dakota	Territory	March 2, 1861	12	239	600	70,195	44,924,800	70,795
	State	February 22, 1889	25	676				
South Dakota	Territory	March 2, 1861	12	239	800	76,850	49,184.000	77,650
	State	February 22, 1889	25	676				
Montana	Territory	May 26, 1864	13	85	770	145,310	92,998,400	146,080
	State	February 22, 1889	25	676				
Washington	Territory	March 2, 1853	10	172	2,300	66,880	42,803,200	69,180
	State	February 22, 1889	25	676				
Idaho	Territory	March 3, 1863	12	808	510	84,290	53,945,600	84,800
	State	July 3, 1890	26	215				
Wyoming	Territory	July 25, 1868	15	178	315	97,575	62,448,000	97,890
	State	July 10, 1890	26	222				
Utah	Territory	September 9, 1850	9	453	2,780	82,190	52,601,600	84,970
	State	July 16, 1894	28	107				

AREA OF EACH STATE AND TERRITORY, ETC.—(Continued).

STATES AND TERRITORIES.	Date of Act of Organization or Admission.	United States Statutes.		Area			
		Vol.	Page.	Water.	Land.		Total.
				Square Miles	Square Miles.	Acres.	Square Miles
PUBLIC LAND TERRITORIES							
New Mexico ....Territory..	September 9, 1850	9	446	120	122,460	78,374,400	122,580
Arizona ....Territory..	February 24, 1863	12	664	100	112,920	72,268,800	113,020
Alaska ....Territory..	July 27, 1868	15	240	....	....	....	590,884
Indian Territory; limits defined by Act of May, 1854	....	.....	......	400	31,000	19,840,000	31,400
District of Columbia ...... Territory..	July 16, 1790	1	214	10	60	38,400	70
District ..	March 3, 1791	1	130				
Oklahoma ....Territory..	May 2, 1890	26	81	200	38,830	24,851,200	39,030
Hawaii ....Territory..	——— —, 1898	.....	......	....	....	....	4,990
Total	....	.....	......	55,562	2,970,230	1,900,947,200	3,622,933

DEVELOPMENT OF PUBLIC LANDS.

[*General Land Office Report.*]

Reports from the National government show that the original area of land belonging to the people-at-large was 1,809,539,880 acres. The following table shows the area of public lands still vacant and subject to entry, the areas reserved and areas appropriated in the public land States and Territories:

Area unappropriated and unreserved..........	863,290,035 acres.
Area reserved..........	169,284,043
Area appropriated..........	776,965,802
Total	1,809,539,880

HIGHEST MOUNTAIN IN EACH STATE.

[*As prepared by U. S. Geological Survey.*]

STATE OR TERRITORY.	Name of Place.	Height. (Feet.)	STATE OR TERRITORY.	Name of Place	Height. (Feet.)
Alabama	Cheauha Mt. (Talladega Co.) ...	2,407	Montana............	Mt. Douglas	11,300
Alaska	Mt. McKinley	20,464	Nebraska	White River Summit	4,876
Arizona	San Francisco Mt.	12,794	Nevada.............	Wheeler Peak	13,036
Arkansas	Magazine Mt.	2,800	New Hampshire	Mt. Washington	6,286
California	Mt. Whitney	14,898	New Jersey	Kittatinny Mt.	1,630
Colorado............	Blanca Peak	14,464	New Mexico	Cerro Blanco	14,269
Connecticut	Bear Mt.	2,355	New York	Mt. Marcy (Adirondack)........	5,344
Delaware	Dupont	282	North Carolina	Mt. Mitchell	6,703
District of Columbia..	Tenley	400	North Dakota	Sentinel Butte	2,707
Florida	Mossyhead	263	Ohio	Ontario	1,376
Georgia.............	Enota Mt.	4,798	Oklahoma	Western end of Beaver Co.......	5,000
Idaho	Hyndman Peak	12,073	Oregon	Mt. Hood	11,225
Illinois	Warren	1,009	Pennsylvania........	Bald Knob	2,994
Indiana	Haley	1,140	Rhode Island........	Durfee Hill	805
Indian Territory	Sugarloaf	2,600	South Carolina	Rocky Mt. (Pickens Co.)	3,600
Iowa	Ocheyedan	1,554	South Dakota	Harney Peak	7,368
Kansas	Kanarado	3,906	Tennessee...........	Mt. Leconte	6,612
Kentucky............	Big Black Mt. (Harlan Co.)	4,100	Texas	Chinati.......................	7,730
Louisiana	Mansfield	321	Utah	Mt. Emmons....................	13,694
Maine	Katahdin Mt.	5,200	Vermont.............	Mt. Mansfield	4,430
Maryland	Great Backbone Mt.	3,400	Virginia	Mt. Rogers (Grayson Co.)	5,719
Massachusetts	Mt. Greylock	3,535	Washington	Mt. Rainier	14,500
Michigan	Porcupine Mt.	2,023	West Virginia	Spruce Mt. (Pendleton Co.)	4,860
Minnesota	Mesabi Range	2,000	Wisconsin	Summit Lake	1,732
Mississippi	Pontotoc Ridge	566	Wyoming	Fremont Peak..................	13,790
Missouri	Cedar Gap	1,675			

NOTE.—It should be stated in connection with this table that it presents only points whose heights are matters of record and that in several cases in the high mountain region of the far West and the Pacific Slope it is well known that there are higher points within the State or Territory whose heights are not yet known with accuracy and consequently cannot be given.

Principal National and Municipal Parks in the United States.

Locations, Areas, Features.

Adirondack State Park, New York, more than 1,500,000 acres, consisting of virgin forest land surrounding the lakes in the Adirondack Mountains which feed the Hudson River and the Erie Canal. "Camping out" in the park is allowed under certain restrictions.

Alum Rock Park, seven miles east of San José, Cal., in Penitencia Cañon; 400 acres; contains a deep gorge through which a mountain stream flows, and several mineral springs.

Arnold Arboretum, West Roxbury, Mass., 150 acres; the joint property of Harvard University and the city of Boston; is devoted to the cultivation of trees, shrubs and plants, and constitutes the finest botanical garden in the country. The surface is diversified by rugged eminences, some of which are heavily wooded with old hemlock trees.

Audubon Park, New Orleans, La. 250 acres; noted for its avenues of old live oaks. The Cotton Exposition of 1884-85 was held here and Horticultural Hall remains. Named after the great naturalist.

Back Bay Fens, Boston, Mass., 115 acres; a chain of ponds formed by Stony Brook, which is flushed from the Charles River. This waterway, originally an unhealthful marsh, has been so skillfully treated that its masses of shrubbery, little islands and expanses of water give the impression that nature alone was responsible.

Bay View Park, Toledo, O., 202 acres, overlooks Lake Erie.

Belle Isle, Detroit, Mich., 700 acres; an island near the head of Detroit River; contains several lakes, and beautiful drives, and is connected with the mainland by a bridge.

Biltmore, near Asheville, N. C., nearly 100,000 acres, or more than 160 square miles, the private property of George W. Vanderbilt, of New York, is on a broad plateau that extends from the Blue Ridge to the Alleghanies at an elevation of several thousand feet above the sea. At one point it touches the city of Asheville. It is densely forested and contains nearly every tree to be found in the mountain region of the Eastern United States. Without leaving his own possessions the owner can ride 35 miles in a straight line. It is surrounded by mountain peaks some of them 6,000 feet high, and commands wonderful views of the French Broad, Hiawassee and other rivers. An arboretum in which are gathered all the trees and shrubs of the temperate region covers some 800 acres. On an esplanade, made by cutting the summit of a hill, stands the great chateau which gives the estate its name. The entire estate is under the care of scientific foresters, and although it is not a public park there are certain portions through which strangers are permitted to drive.

Blackstone Park, Providence, R. I., 200 acres, on the banks of the Seekonk; named after William Blackstone, the first white settler of Shawmut, afterward Boston, and the first white settler in Rhode Island.

Blue Hills Reservation, Milton, Mass., 3,953 acres, a wooded tract containing the hills (the highest elevations on the Atlantic coast south of Maine) which gave their Indian name to the State. A part of the Boston Park system.

Boston Common, Boston, Mass., 48 acres, dating from 1634, was purchased from William Blackstone, together with the peninsula of Boston, for £30 and previous to 1833 was a common pasture and training ground. Here Quakers, murderers, pirates, and alleged witches were hung. The Public Garden adjoining, 22 acres, originally was a part of the Common, and they practically form one pleasure ground. The former contains fine old trees, a pond on the site of the historic "Frog Pond," a soldiers and sailors' monument, and the Shaw Memorial; the latter has a remarkable floral display, a serpentine pond, and Ball's equestrian statue of Washington, besides other statues.

Branch Brook Park, Newark, N. J., 277 acres, an artificial park, with a lake as its main feature. It forms a part of the Essex County Park system. See also EAGLE ROCK PARK; SOUTH MOUNTAIN PARK.

Bronx Park, New York City, 3341 acres, on the

Bronx River north of E. 182d street; has fine natural woods, a botanical garden, large conservatories, a zoölogical garden, and baseball grounds. The Bronx flows through a deep ravine at one point.

Brooklyn Forest Park, Brooklyn (town of Jamaica), 563 acres.

Brooklyn Park, Cleveland, O., 81 acres.

Buffalo Park, Buffalo, N. Y., 133 acres; has an artificial but remarkably beautiful lake, extensive meadows, and polo grounds. The Pan-American Exposition occupied a part of the park.

Burnet Woods, Cincinnati, O., 170 acres, a finely forested tract, on a hill north of the city.

Bussey Park, Boston, Mass. (West Roxbury), 73 acres of wooded land adjoining the Arnold Arboretum.

Calaveras Grove, Calaveras County, Cal., a belt of giant redwoods, 3,200 feet long and 700 feet wide, in the Sierra Nevada Mountains on the Stanislaus River; reserved by Act of Congress. It contains hundreds of trees, 93 of them of great size. One is 325 feet high and is 45 feet in circumference at the base.

Carondelet Park, St. Louis, Mo., 180 acres, a fine example of landscape gardening.

Castle Island, Boston Harbor, 104 acres, a popular pleasure resort connected with the mainland (Marine Park) by a bridge. Large elms, poplars and horse chestnuts give abundant shade. Here is situated the historic Fort Independence.

Central City Park, Macon, Ga., 237 acres, a tract of great natural beauty. The State Agricultural Society has buildings here and holds annual fairs.

Central Grove Park, Toledo, O., 1,900 acres.

Central Park, New York City, 843 acres, extends from Fifty-ninth to 110th street, a little over 2 miles, and from Fifth to Eighth avenue, a little over half a mile. It was begun in 1857 and is the work of Frederick Law Olmsted and Calvert Vaux. The surface is very irregular, that at the upper part being elevated and well wooded. One of the most attractive sections is "The Ramble," north of the main lake, where ravines, streams, sequestered nooks and winding paths combine to form a scene of great beauty. There are about 9 miles of carriage drives, 29 miles of walks, and 5 miles of bridle paths. About 185 acres of the area is devoted to water, and includes two reservoirs. The principal feature is the Mall, a broad path under elm trees, leading to a terrace which descends to the largest lake. In the esplanade at the foot of the Terrace is Besthesda Fountain, executed by Miss Emma Stebbins. A meadow of 16 acres is thrown open to ballplayers on certain days and elsewhere there are tennis courts. The Metropolitan Museum of Art is within the park enclosure, and the Museum of Natural History is situated near one of the western entrances. The obelisk, called "Cleopatra's Needle," from Heliopolis, Egypt, stands on a knoll near the Museum of Art. A small menagerie is situated in the southern part of the park. An equestrian statue of General Sherman fronts the Fifth avenue entrance, and within the park are various statues, of which Ward's "Indian Hunter" and "Pilgrim," and Kemeys' "Still Hunt" are perhaps the most meritorious. Considering the natural disadvantages of the site and the narrowness of the tract, this park may be considered a triumph of landscape gardening.

Cherokee Park, Louisville, Ky., 250 acres, is noted for its magnificent forest trees.

Chickamauga and Chattanooga National Park, 7,600 acres, extends with its approaches from Sherman Heights in Tennessee, 6 miles north of Chattanooga, to Glass Mill, Ga., a distance of 22 miles, along Bragg's line of battle on Missionary Ridge; passes along the fronts of Sherman's army, Thomas' Army of the Cumberland, and the army under Hooker. It overlooks all the battlefields about Chattanooga, including Lookout Mountain, and runs for 12 miles through the centre of the fighting ground of the three days' battle of Chickamauga, September 18-20, 1863, a tract in itself about 10 miles square. The fields have been restored as nearly as possible to their condition at the time of the battle, the lines of battle have been marked by monuments and tablets, observation towers have been erected on elevations, more than 100 miles of roads have been opened, and over 400 guns used on the fields have been set up to mark the exact position of the batteries of each of the contending armies. State and regimental monuments are numerous, Ohio leading with 55. An excursion of Union soldiers to the battlefield in 1888 led to the publication of letters in a Cincinnati newspaper in which the suggestion was made that the field be preserved as a park, and the following year a joint meeting of Union and Confederate veterans formed a Memorial Battlefield Association. The project secured the support of the Fifty-first Congress and the Government at once took steps to secure the land, which was ceded by Georgia and Tennessee, and in 1895 the park was dedicated. The park was made a national manœuvring ground, as well, and on the declaration of war with Spain, 1898, the volunteer army intended for the invasion of Cuba was concentrated there.

City Park, Denver, Col., contains several lakes and a race course.

City Park, New Orleans, La., 150 acres, lies near the northwestern boundary of the city.

Clifton Park, Baltimore, Md., in the northern part of the city; originally the country seat of Johns Hopkins; contains conservatories and ornamental bodies of water.

Collins Park, East Toledo, O., 70 acres.

Columbia Park, Minneapolis, Minn., 166 acres.

Como Park, St. Paul, Minn., 377 acres, lies on the shore of Lake Como.

Crater Lake National Park, Oregon, 159,360 acres.

Dalles of the St. Croix, partly in Minnesota (500 acres) and partly in Wisconsin (1,500 acres) with 3½ miles of shore line on the St. Croix River. A wild and highly picturesque region with varied geological features.

Doane Brookway, Cleveland, O., 208 acres.

Douglas Park, Chicago, Ill., 180 acres, in the western part of the city; has several lakes.

Druid Hill, Baltimore, Md., 680 acres; noted for its grand old oaks; situated on high ground from which fine views of the river and harbor are obtained. A large reservoir, or artificial lake, is one of the features.

Dyker Beach Park, Brooklyn, N. Y., 144 acres, touches New York Bay.

Eagle Rock Park, West Orange, N. J., 413 acres, is about 1¼ miles in length, is covered with forest, and includes the crest of Orange Mountain about 600 feet above sea level. It affords extended views of the Passaic and Hackensack valleys.

East Rock Park, New Haven and Hamden, Conn., 370 acres; about ½ mile in length; on the sides and summit of the trap promontory called East Rock, 362 feet high. A soldiers' monument surmounts the Rock.

Eden Park, Cincinnati, O., 156 acres, in the eastern part of the city; hilly ground of great natural beauty, overlooking the Ohio Valley.

Edgewater Park, Cleveland, O., 89 acres.

Elizabeth Park, West Hartford, Conn., 90 acres, on Prospect Hill, commanding extended views of the Connecticut River Valley.

Elm Park and Newton Hill, Worcester, Mass., 60 acres, a prettily wooded tract.

Fairmount Park, Philadelphia, Pa., 3,353 acres, comprises East Park, 633 acres; West Park, 1,323 acres; Wissahickon Park, 1,010 acres, and includes 373 acres of water surface. It extends along the Schuylkill River for more than 7 miles and along Wissahickon Creek for more than 6 miles, beginning at Fairmount, an elevation on the river, and ending at Chestnut Hill on the creek. It is one of the largest parks in the world. The nucleus, Morris Hill, 5 acres, was acquired in 1812, partly for water purposes. By 1830 it had increased to 28 acres. In 1867 an estate nearby was purchased, partly to protect the water supply of the city and was given the name of Fairmount Park. Two years later, intervening ground was bought and subsequently other tracts of land were acquired. Included in the park limits is Lansdowne, the country-seat of Governor John Penn, and several colonial mansions, including the residences of Robert Morris and Benedict Arnold. The park is remarkable for the beauty of its drives and for its forest trees, and contains one of the best zoölogical gardens in the country. A statue of Washington, erected by the Society of the Cincinnati, and a colossal statue of Lincoln adorn the East Park. The Centennial Exhibition of 1876 was held in this park and two buildings remain—Memorial Hall, which contains an art and industrial exhibition, and the Horticultural Building, a conservatory surrounded by an extensive garden.

Fair View Park, Indianapolis, Ind., 160 acres, on the White River.

Forest Park, Springfield, Mass., 400 acres, has extensive ponds with a good display of aquatic plants.

Forest Park, St. Louis, Mo., 1,374 acres; the western half, with adjacent lands, forms the site of the Louisiana Purchase Exposition. It is approached by three wide boulevards. The Des Pere River flows through it. It has fine groves of oak trees, a zoölogical garden and a driving park.

Franklin Field, Boston, Mass., 77 acres, chiefly meadow, is utilized largely in winter as a skating pond.

Franklin Park, Boston, Mass., 727 acres, in the southern part of the city, a rugged forested tract almost in its natural state. A playground of some 70 acres adds to its attractions. There are over 6 miles of drives, 2 miles of bridle paths, and 13 miles of foot paths.

Franklin Park, Columbus, O., 83 acres; comprises the former grounds of the Franklin County Agricultural Society.

Gage Park, Topeka, Kan., 80 acres, about 3 miles west of the City Building, has a small lake, a nursery, and conservatories.

Garden of the Gods, El Paso County, Col., 450 acres, partly surrounded by mountains, and entered by a narrow gateway between lofty rocks; remarkable for its high and brilliantly colored sandstone cliffs, some of which are 350 feet high.

Garfield Park, Chicago, Ill., 150 acres.

Garfield Park, Indianapolis, Ind., 97 acres, in the southern part of the city.

General Grant National Park, Mariposa County, Cal., 2,560 acres. A grove of giant redwoods; reserved by Act of Congress.

Gettysburg National Park, Gettysburg, Pa., 800 acres, includes a considerable part of the field where the great battle of July 1-3, 1863, was fought. It adjoins the National Cemetery, dedicated by President Lincoln, in 1863, which contains the graves of 3,564 soldiers; also an imposing soldiers' monument. The roads or avenues as laid out cover the lines of battle at every stage, and many of them bear the names of generals who were prominent in the contest. All the strategic points have been marked, and no other State or nation has so adorned a battlefield with costly monuments. One of these bears a tablet on which is inscribed President Lincoln's famous Gettysburg address. Much of the ground remains in the same condition as in 1863, and a number of buildings are still standing. An Act of Congress in 1895 authorized the Secretary of War to receive from the Gettysburg Battlefield Memorial Association all the lands it possessed, and appropriated $100,000 for the purpose of establishing the park.

Glen Oak Park, Peoria, Ill., 93 acres, has an artificial lake, a picturesque ravine and conservatories.

Glenwood Park, Duluth, Minn., 147 acres, has a driveway about 500 feet above Lake Superior.

Glenwood Park, Minneapolis, Minn., 57 acres.

Golden Gate Park, San Francisco, Cal., 1,050 acres, extends to the ocean, where there is a fine beach. The surface rises to 900 feet. It contains a chain of lakes, an artificial cascade, a speedway, polo grounds, a conservatory, museum, an immense variety of trees and shrubs, a statue of Francis Scott Key, and a monument to Robert Louis Stevenson.

Gordon Park, Cleveland, O., 74 acres, touches the lake shore and connects by boulevard with Wade Park.

Grant Park, Atlanta, Ga., the gift of Colonel L. P. Grant, opened 1882, on the south side of the city; a tract of great natural beauty containing a number of springs.

High Bridge Park, New York City, 84 acres, a stretch of natural woods on the bluff forming the west bank of the Harlem River.

Highland Park, Pittsburg, Pa., 150 acres. The Carnegie Library stands near the entrance.

Hot Springs Reservation, Hot Springs, Ark., 91,163 acres, reserved by Act of Congress 1832, but not fully established until 1877, lies on the spurs of the Ozark Mountains above the city of Hot Springs, and includes Hot Springs, North, West, and Sugar Loaf Mountains. It is thickly wooded and contains some 48 springs, a number of which are leased to corporations and individuals.

Humboldt Park, Chicago, 225 acres, is in the southern part of the city and is connected with Lincoln Park by a boulevard. It contains a statue of Humboldt.

Iroquois Park, Louisville, Ky., 554 acres; has as its main features a wooded hill.

Jamaica Park, Boston, Mass., 120 acres, is reached by a driveway from Arnold Arboretum. Within its limits, set in wooded hills, is Jamaica Pond, the largest sheet of water in the city.

Jackson Park, Chicago, 310 acres, on the "South Side," having a frontage on Lake Michigan. Here the Columbian Exposition was held, of which the Art Palace remains as the Field Museum. The Midway Plaisance connects it with Washington Park.

Juneau Park, Milwaukee, Wis., 123 acres, on a bluff 100 feet above Lake Michigan; extends for 1½ miles along the lake, and is intersected by a picturesque ravine. It contains statues of Solomon Juneau, founder of the city and Leif Ericsson.

Keeney Park, Hartford, Conn., 90 acres, in northern part of the city.

Lake Harriet Park, Minneapolis, Minn., about 200 acres.

Lake of the Isles, Minneapolis, Minn., 154 acres, contains the pretty lake which gives it its name.

Lake Park, Worcester, Mass., 110 acres, a hilly wooded tract, partly on Lake Quinsigamond.

Laura Bradley Park, Peoria, Ill., 140 acres, rolling ground with natural forest.

League Island Park, Philadelphia, Pa., a new and, as yet, unfinished park of considerable dimensions, laid out in southern Philadelphia, contiguous to League Island Navy Yard. It bids fair to be both commodious and beautiful when completed.

Lincoln Park, Chicago, 400 acres, on the "North Side," on the lake shore, has fine trees, artificial hills, conservatories, a zoölogical garden, and contains St. Gaudens' statue of Lincoln, and statues of General Grant, Shakespeare and other celebrities.

Los Angeles Park, Los Angeles, Cal., 3,000 acres; a mountainous tract on Los Angeles River, affording fine views.

Lyndale Park, Minneapolis, Minn., 61 acres.

Lynn Woods, Lynn, Mass., over 2,000 acres, a hilly and heavily wooded tract, containing a part of Walden Pond.

Madison Park, Peoria, Ill., 83 acres, distributed between hills and lowlands.

Marine Park, South Boston, Mass., 255 acres, on Boston Harbor; is surrounded on three sides by the sea, has an excellent beach, affords opportunities for yachting and boating, and is one of the most popular resorts in the city. Its chief ornament is a statue of Farragut. A bridge connects it with Castle Island Park.

Mariposa Grove, Mariposa County, Col., a part of General Grant Park; a grove of giant redwoods.

Marshall Park (Libby Hill), Richmond, Va., 300 acres, commands a fine view of the James.

Middlesex Fells, Malden, Medford and Melrose, Mass., 3,000 acres, hilly forested land, largely in its natural state, forms a part of the Boston Park System.

Minnehaha Park, Minneapolis, Minn., 125 acres, contains the Falls of Minnehaha and affords views of the Mississippi Valley.

Monroe Park, Richmond, Va., near the western part of the city, contains a statue of General W. A. Wickham.

Mount Rainier National Park, Washington, 207,360 acres, at an elevation of 6,000 feet, between the base of Mount Tacoma and the Tatoosh range; contains glaciers, lakes and waterfalls.

National Military Park, Perryville, Boyle County, Ky., where October 8, 1862, a great combat occurred; ceded by Kentucky to the United States, 1903.

National Zoological Park, District of Columbia, 170 acres. Set apart by Act of Congress, 1889.

Newburgh Park, Cleveland, O., 157 acres.

Niagara International Park, set apart, 1901, by joint action of the State of New York and Canada, comprises the land on both sides of Niagara River and Falls. The New York Reservation, including Goat Island, comprises 106 acres; the Canadian Reservation, 118 acres.

North Brandywine Creek Park, Wilmington, Del., 80 acres.

O'Fallon Park, St. Louis, Mo., 160 acres, remarkable for its forest trees and the views of the Mississippi it affords.

Oglethorpe Park, Atlanta, Ga., 140 acres.

Olmsted Park, Boston, Mass., 180 acres; laid out 1890-92.

Ottawa Park, Toledo, O., 280 acres, on the Maumee River.

Palisade Interstate Park, New Jersey and New York, 15 miles of the Palisades of the Hudson and adjacent land to high-water mark, extending from Fort Lee to Huyler's Landing.

Palmer Park, Detroit, Mich., 132 acres, a popular pleasure ground.

Patterson Park, Baltimore, Md., 200 acres, includes a small lake.

Phalen Park, St. Paul, Minn., natural forest surrounding a lake.

Piedmont Park, Atlanta, Ga., 189 acres, 3 miles from the centre of the city, on hilly ground from which a wide expanse of mountainous country is visible. It is approached by a handsome driveway. The park is closely associated with the siege of 1864 and contains the rifle pits over which Sherman threw the first shell into Atlanta. The Cotton States and International Exposition of 1895 was held here.

Point Defiance Park, Tacoma, Wash., 662 acres.

Pope Park, Hartford, Conn., 100 acres of undulating ground on Park River.

Powderhorn Lake Park, Minneapolis, Minn., 52 acres.

Prospect Park, Brooklyn, N. Y., 516 acres, in the central part of the city, includes a part of the ground on which, in 1776, was fought the battle of Long Island. A monument to the memory of the Maryland troops killed in that engagement stands on Lookout Hill. The park was begun in 1866. Its natural advantages are very great; its forest trees surpass those of Central Park. From Lookout Hill one gets a fine view of the ocean and of New York Bay. An old-fashioned garden, a ravine called the "Vale of Cashmere," and a large lake are among its attractions. The Plaza at the main entrance has an imposing soldiers and sailors' monument.

Public Park, Allegheny, Pa., 100 acres, has a soldiers' monument and a Humboldt fountain.

Putnam Wolf Den, Pomfret, Conn.; a State reservation.

Riverside Park, New York City, 140 acres, extends from Seventy-second to 130th Street, nearly 3 miles, about 500 feet above the Hudson River, of which it commands a magnificent view. It is tastefully laid out and contains some fine trees. Here is an imposing soldiers and sailors' monument. Riverside Drive leads to Grant's Tomb, which is situated on the edge of the park.

Riverside Park, Toledo, O., 63 acres, on the lake shore.

Rock Creek Park, West Washington (Georgetown), D. C., 1,606 acres, mostly natural, on both sides of Rock Creek, adjoining the Zoölogical Garden.

Rockford Park, Wilmington, Del., 71 acres, contains an observatory on Mt. Salem Hill.

Roger Williams Park, Providence, R. I., 400 acres on west shore of Narragansett Bay; bequeathed 1871 by a descendant of Roger Williams, contains a statue of its founder.

Ross Park, Binghamton, N. Y., 100 acres.

San Juan Battlefield, Cuba, ceded to the United States by Cuba.

Santa Cruz Park, Cal., six miles from Santa Cruz; a grove of giant redwoods; State reservation.

Schenley Park, Pittsburg, Pa., 500 acres, a tract of great natural beauty. The Carnegie Library stands near one of the entrances.

Seneca Park, Rochester, N. Y., on the Genesee River, includes two falls, one 100 feet high.

Sequoia Park, Tulare County, Cal., 160,000 acres; between Kings and Kern Rivers; contains hundreds of giant sequoias or redwoods; State reservation.

Shaker Heights Park, Cleveland, O., 179 acres.

Shawnee Park, Louisville, Ky., 167 acres, in western part of the city, on the Ohio River.

Shaw's Garden, St. Louis, Mo., 109 acres, adjoining Tower Grove Park; has an arboretum and a flower garden of 10 acres.

Shiloh National Military Park, Hardin County, Tenn., 3,000 acres; reserved by Congress, 1895; site of the battle of April 6-7, 1862. Various monuments have been erected by States, brigades and regiments.

South Brandywine Park, Wilmington, Del., 73 acres.

South Mountain Park, West Orange, South Orange and Millburn, N. J., 2,000 acres, includes parts of South Mountain, Second Mountain and the valley of the west branch of Rahway River, a finely wooded tract containing some high trap cliffs.

South Park, Hartford, Conn., 200 acres, partly primitive forest; fine views of the Connecticut Valley.

Tower Grove Park, St. Louis, Mo., 276 acres, has fine expanses of lawn and some of the most charming driveways in the city.

Valley Forge Park, Pennsylvania, over 500 acres, includes the whole of Washington's winter-quarters, 1777-78, and also affords a camping-ground for the State National Guard. Steps to preserve this historic ground were begun by the Legislature in 1893. The redoubts, intrenchments, etc., have been carefully preserved and a monument to the heroic dead—a handsome granite obelisk—was erected in 1901 by the Daughters of the Revolution.

Wade Park, Cleveland, O., 74 acres, in the western part of the city.

Walbridge Park, Toledo, O., 62 acres, on elevated ground on the Maumee River.

Washington Park, Chicago, Ill., 469 acres, has two lakes and connects with Jackson Park by the Midway Plaisance.

Washington Park, Albany, N. Y., 81 acres, in the western part of the city; contains a memorial fountain and a statue of Burns.

West River Bank, Minneapolis, Minn., 150 acres.

West Rock Park, New Haven, Conn., includes the trap promontory 405 feet high that gives it its name, and the pile of boulders called "Judge's Cave," celebrated in colonial history. From the summit a wide expanse of Long Island Sound is visible, and an extended view of hills, farms and forests stretching inland.

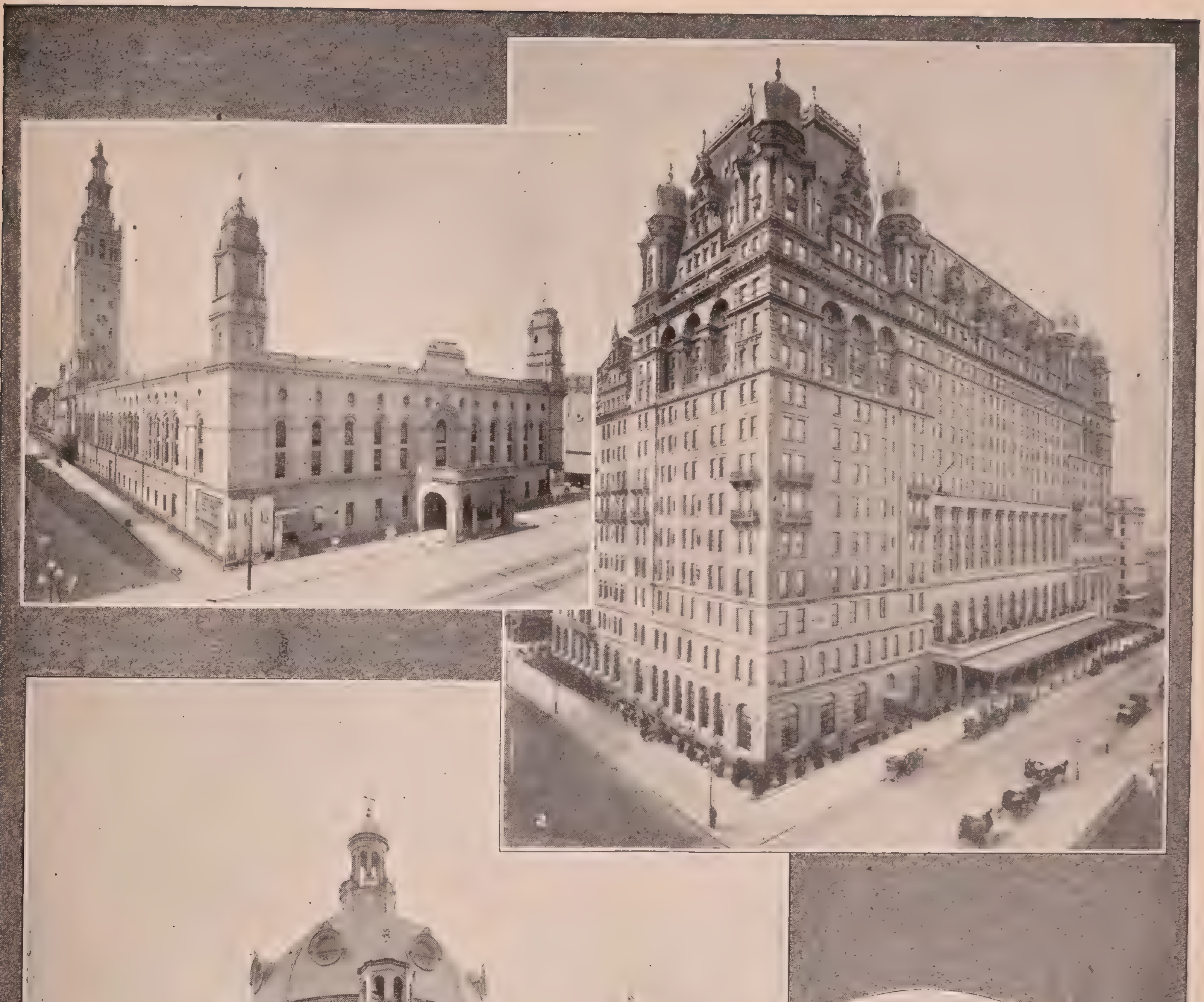
Wind Cave National Park, South Dakota, 10,560 acres.

Wood Island, Boston Harbor, 211 acres.

Yellowstone National Park, in Wyoming and Montana, contains about 3,348 square miles. It was reserved by Act of Congress in 1872. Its length north and south is 62 miles; its width, 54 miles; its average altitude, 8,000 feet above the sea. The Yellowstone River flowing through, falls in one place 308 feet. Yellowstone Lake, a deep and beautiful sheet of water, is 20 miles long. There are more than 4,000 hot springs and geysers, one group covering an area of 12 square miles.

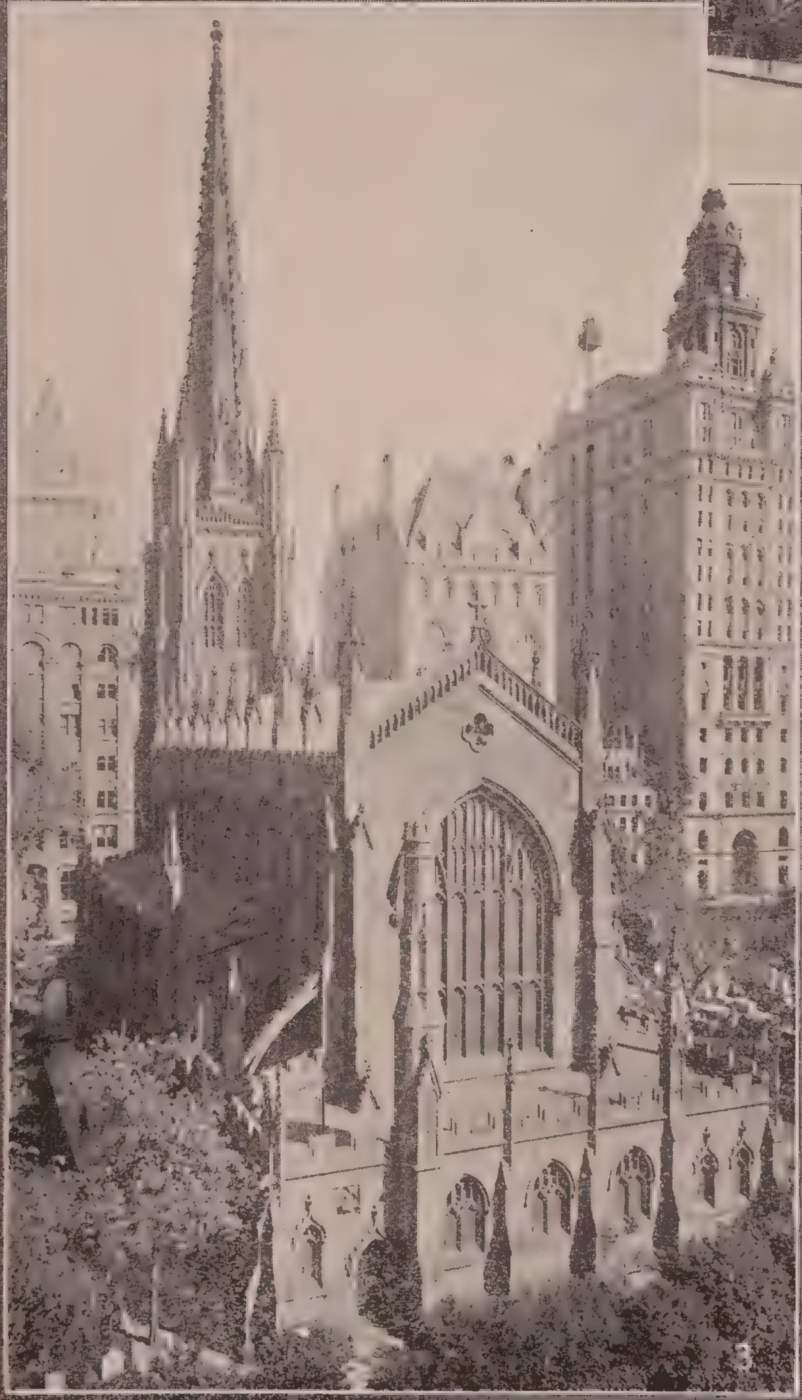
Yosemite National Park, was established by Act of Congress, 1890. Lying on the western slope of the Sierra Nevada range, and stretching to the summit it is about 42 miles long by 36 miles wide, and has an area of nearly 100,000 acres (1,500 square miles). The Yosemite Valley, a gorge, about 6 miles long and from half a mile to a mile in width, is 4,000 feet above the sea. It is walled in by mountains that rise precipitously to the height of 3,000-4,000 feet, crowned with domes, towers, and pinnacles, and is traversed by the Merced River into which many streams descend in grand waterfalls. The Hetch Hetchy Valley is by some considered hardly inferior to the Yosemite Valley in grandeur. No mountain region in the world contains more remarkable and wonderful features.

NEW YORK.



1. Madison Square Garden. 2. Waldorf-Astoria Hotel. 4. Church and Library, Sailors' Snug Harbor.
3. Speedway and Washington Bridge.

NEW YORK.

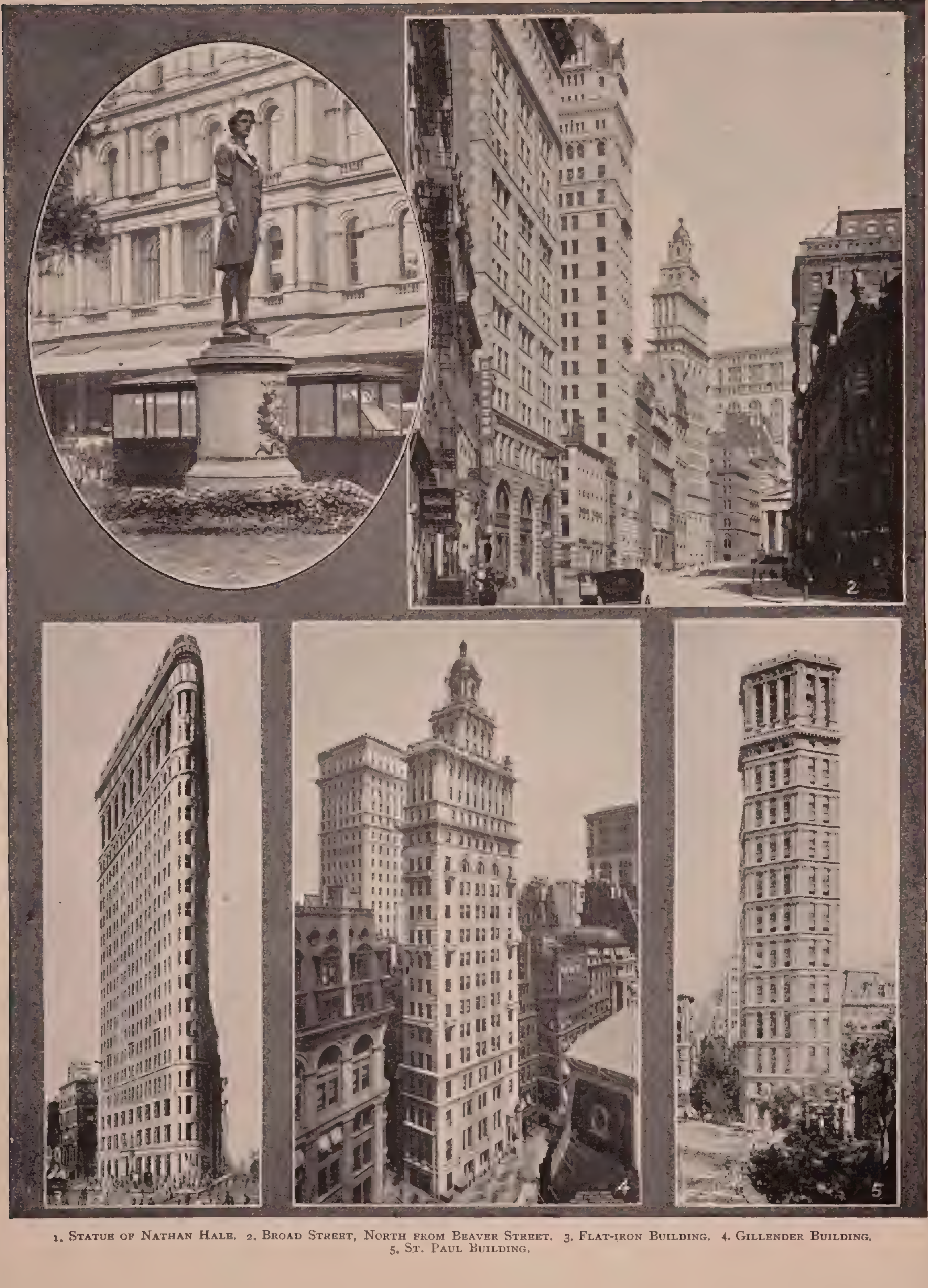


1. Produce Exchange. 2. The Appellate Court House. 3. Trinity Church 4. Memorial Arch, Brooklyn.

NEW YORK.

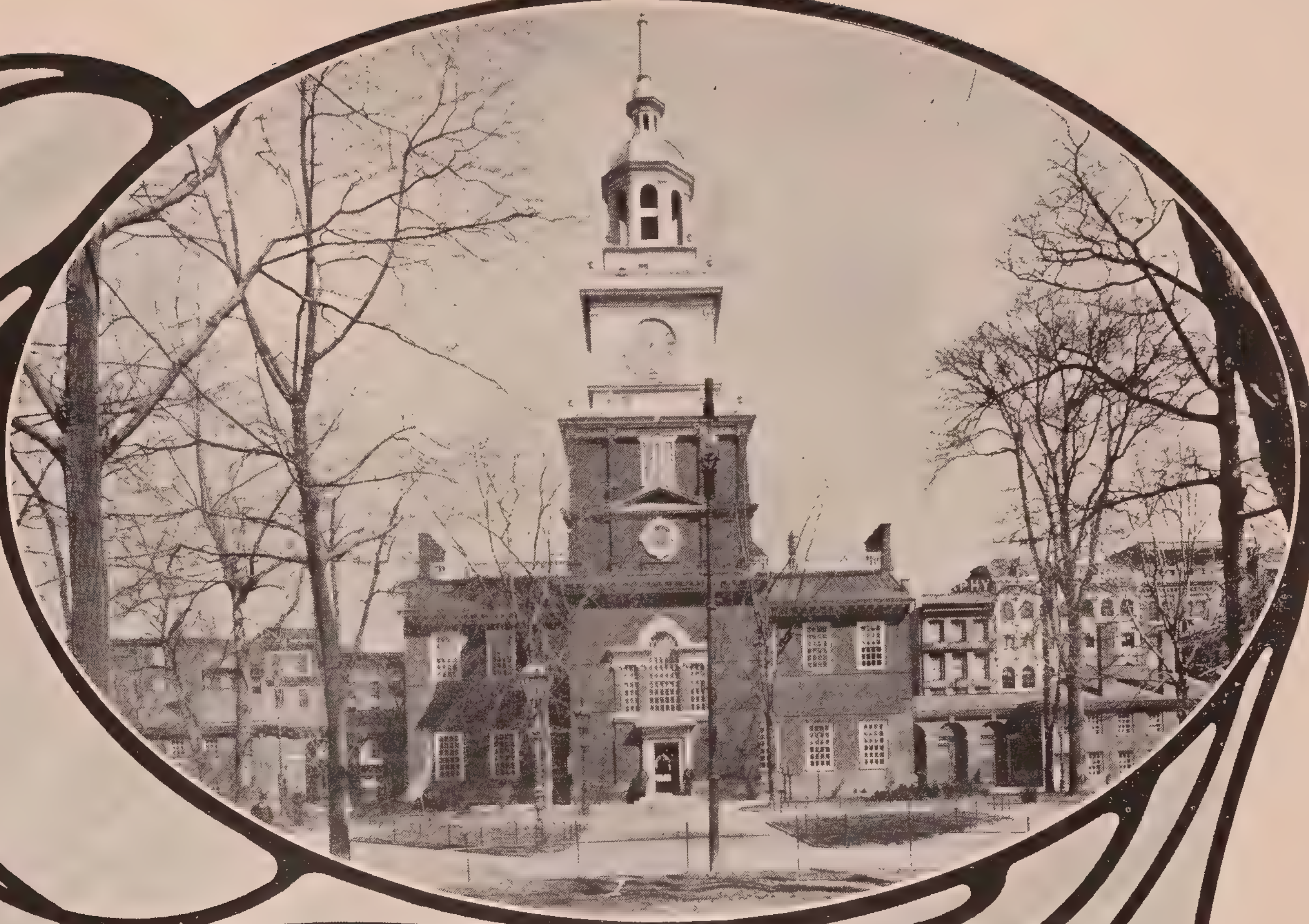
1. United States Sub-Treasury 2. Clearing House. 3. Insurance District.

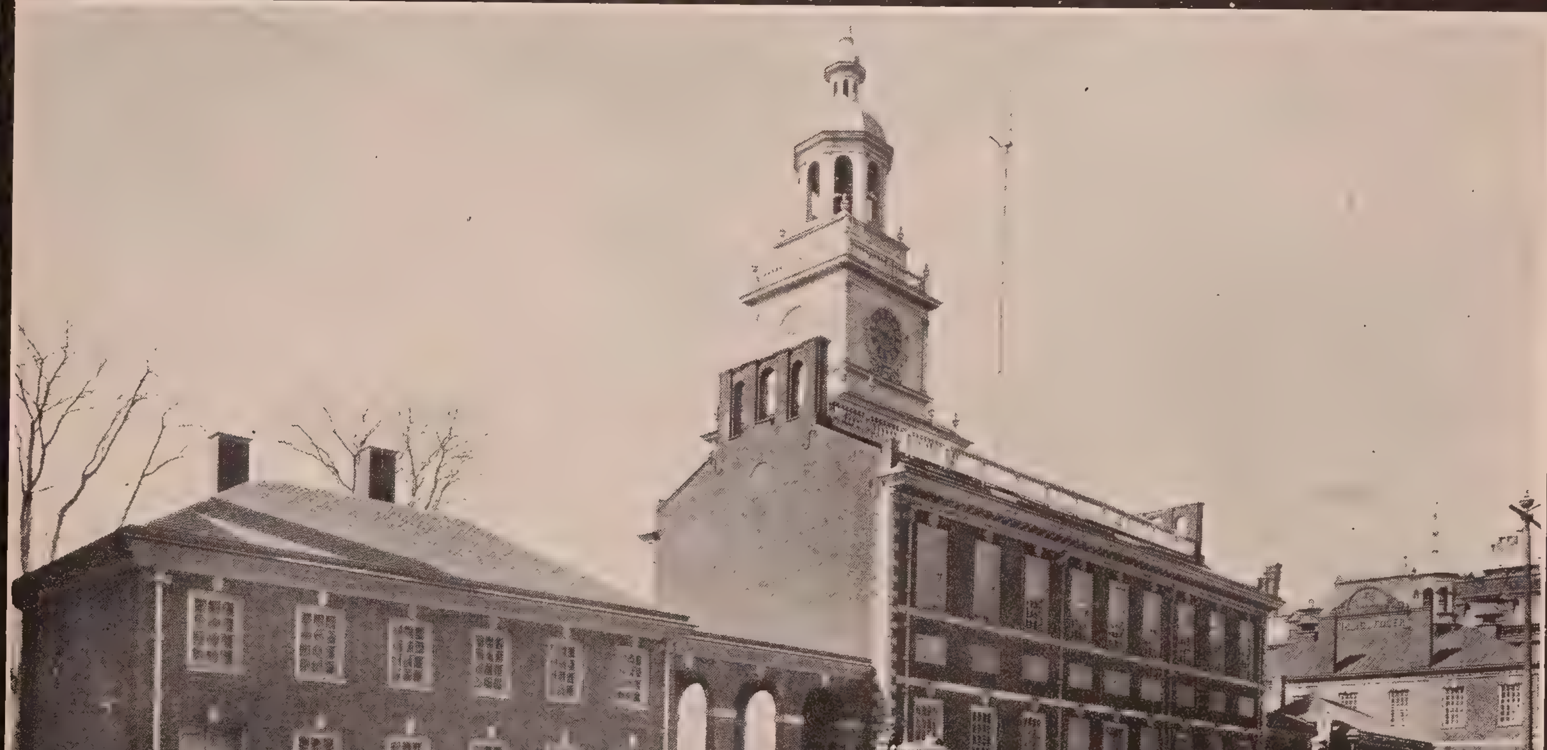
NEW YORK.



1. Statue of Nathan Hale. 2. Broad Street, North from Beaver Street. 3. Flat-iron Building. 4. Gillender Building. 5. St. Paul Building.

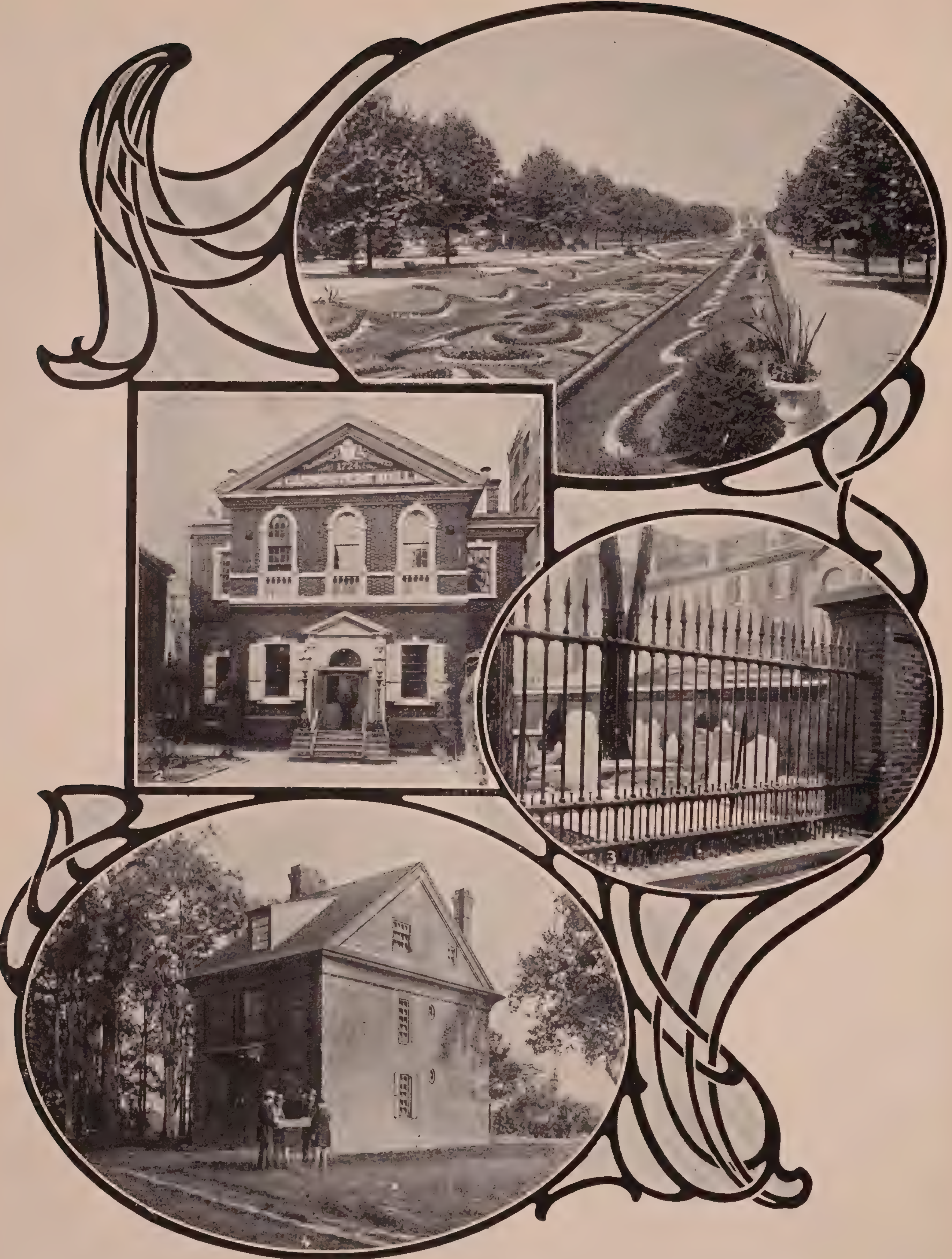
PHILADELPHIA.





1. Rear View of Independence Hall. 2. Front View of Independence Hall.

PHILADELPHIA.



1. Sunken Gardens, Fairmount Park. 2. Carpenter's Hall, where First Continental Congress Assembled, 1774. 3. Benjamin Franklin's Grave.
4. Letitia House, Original Residence of William Penn.

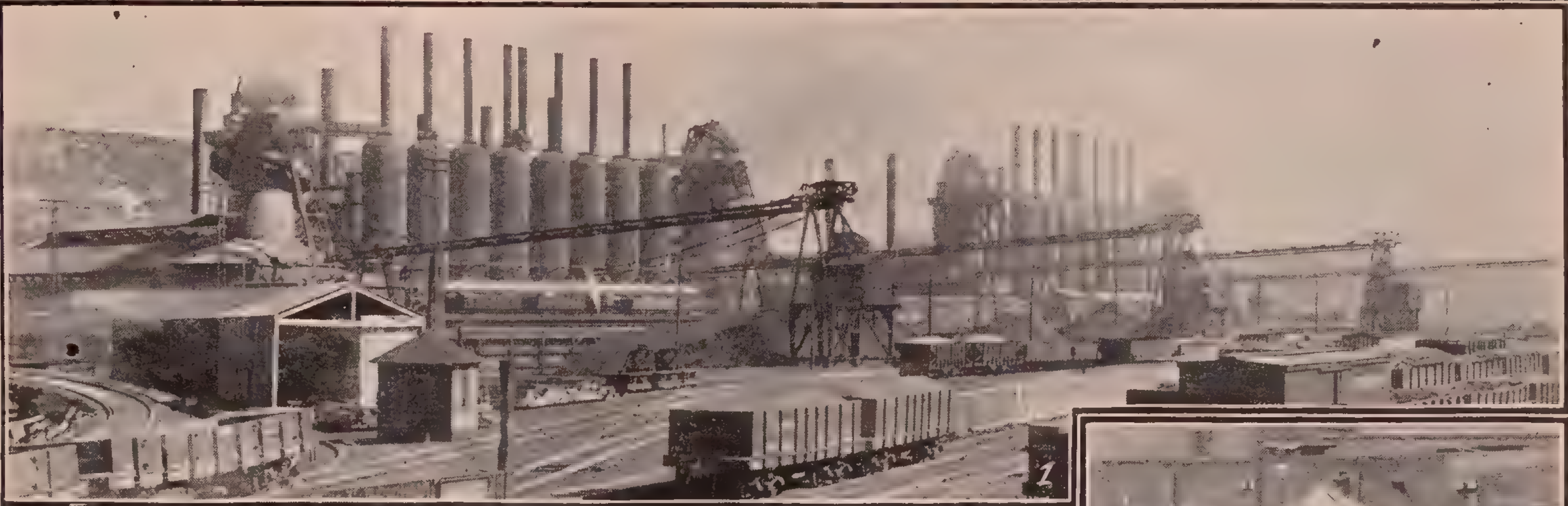
PHILADELPHIA.

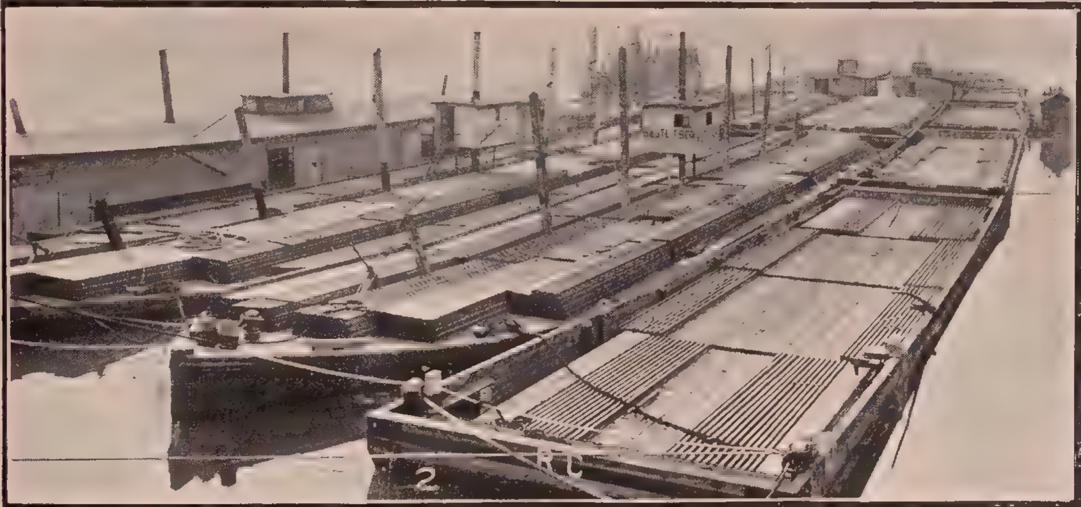
1. Main Building, Girard College. 2. Scene Along Wissahickon Creek, Fairmount Park.
3. Betsy Ross' House, where the First American Flag was Made. 4. Washington Monument.

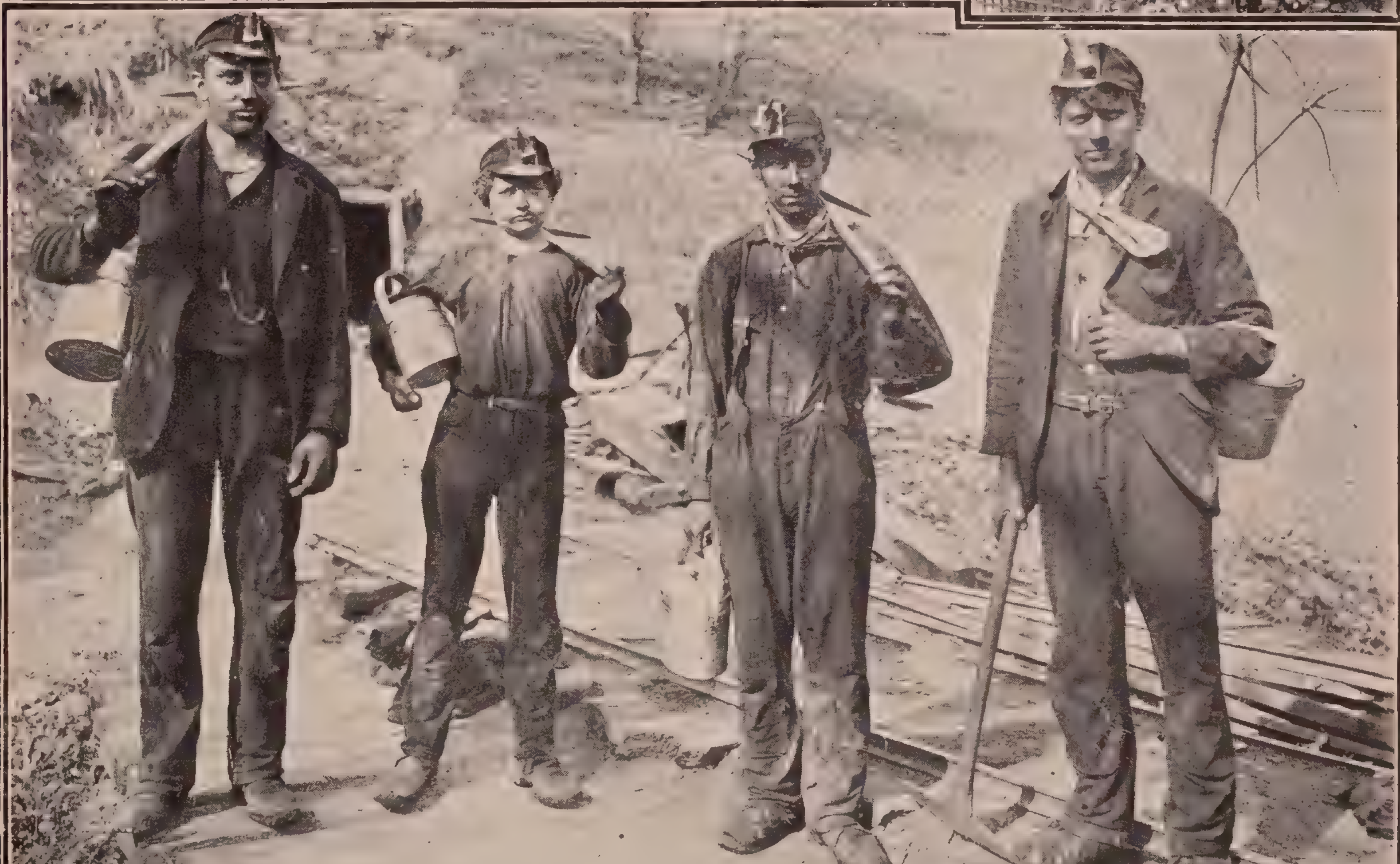
PHILADELPHIA.

1. Pennsylvania Railway Station. 2. Philadelphia Bourse. 3. Reading Terminal.

PITTSBURGH.





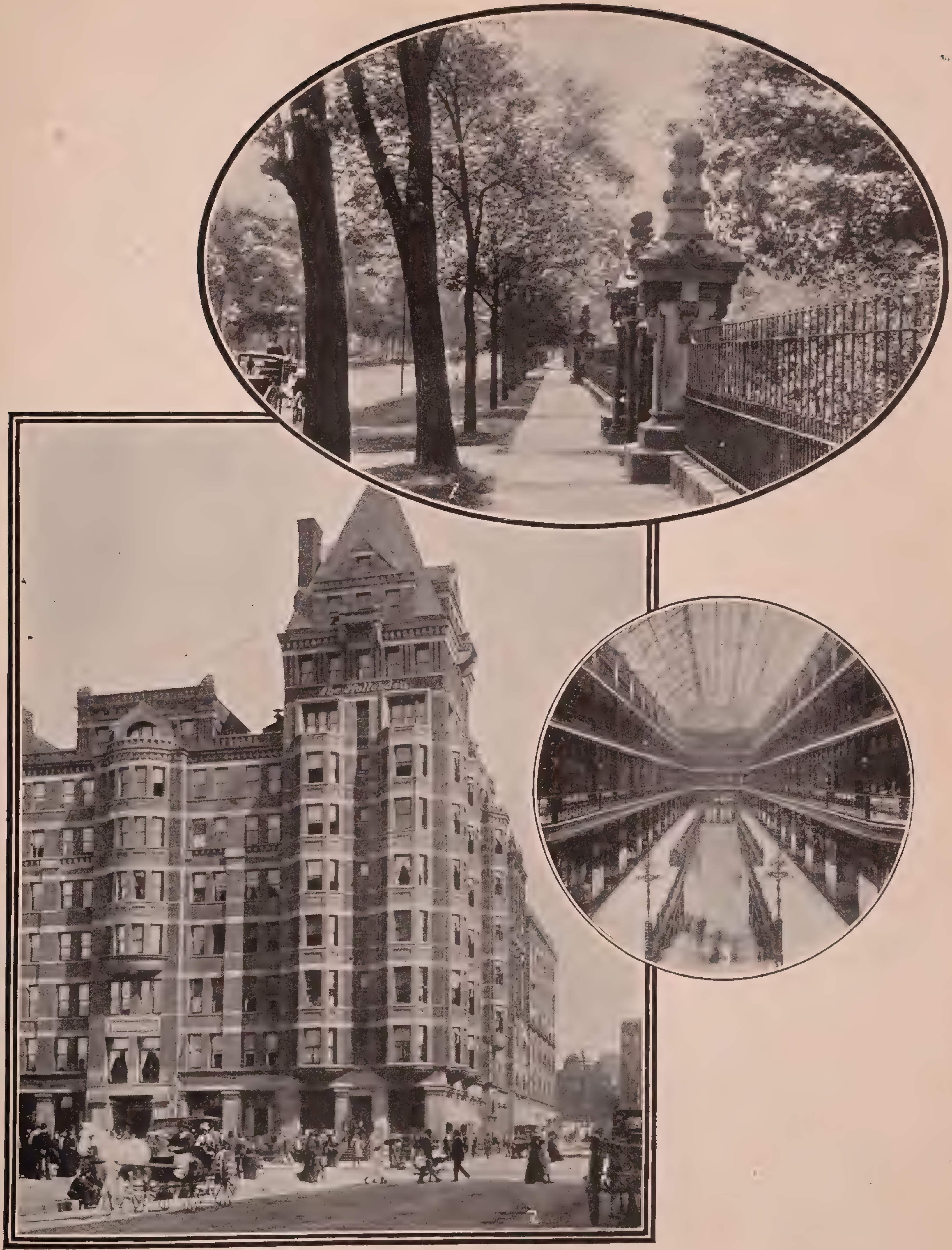


1. Duquesne Iron Furnaces. 2. Shipping Steel Rails from Carnegie's Plant. 3. Typical Group of Coal Miners.

PITTSBURGH.

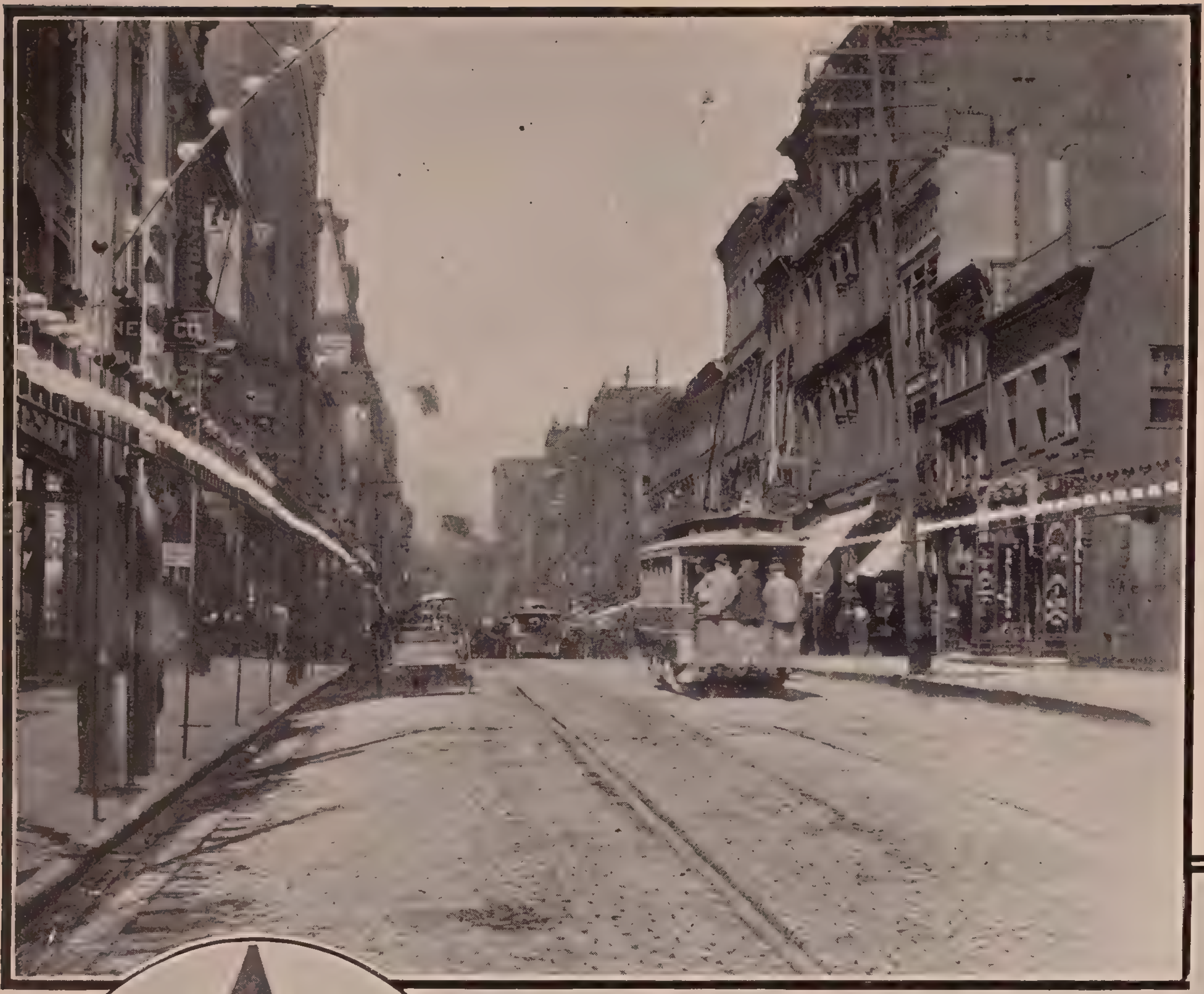
1. Monongahela Wharf, Coal Fleet Starting for New Orleans. 2. Carnegie Library and Music Hall.
3. View of Pittsburgh from Mount Washington.

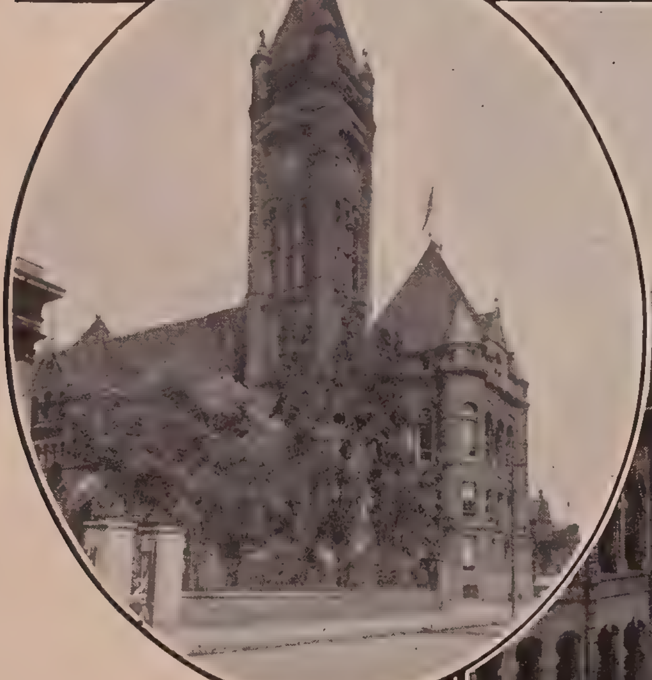
CLEVELAND.

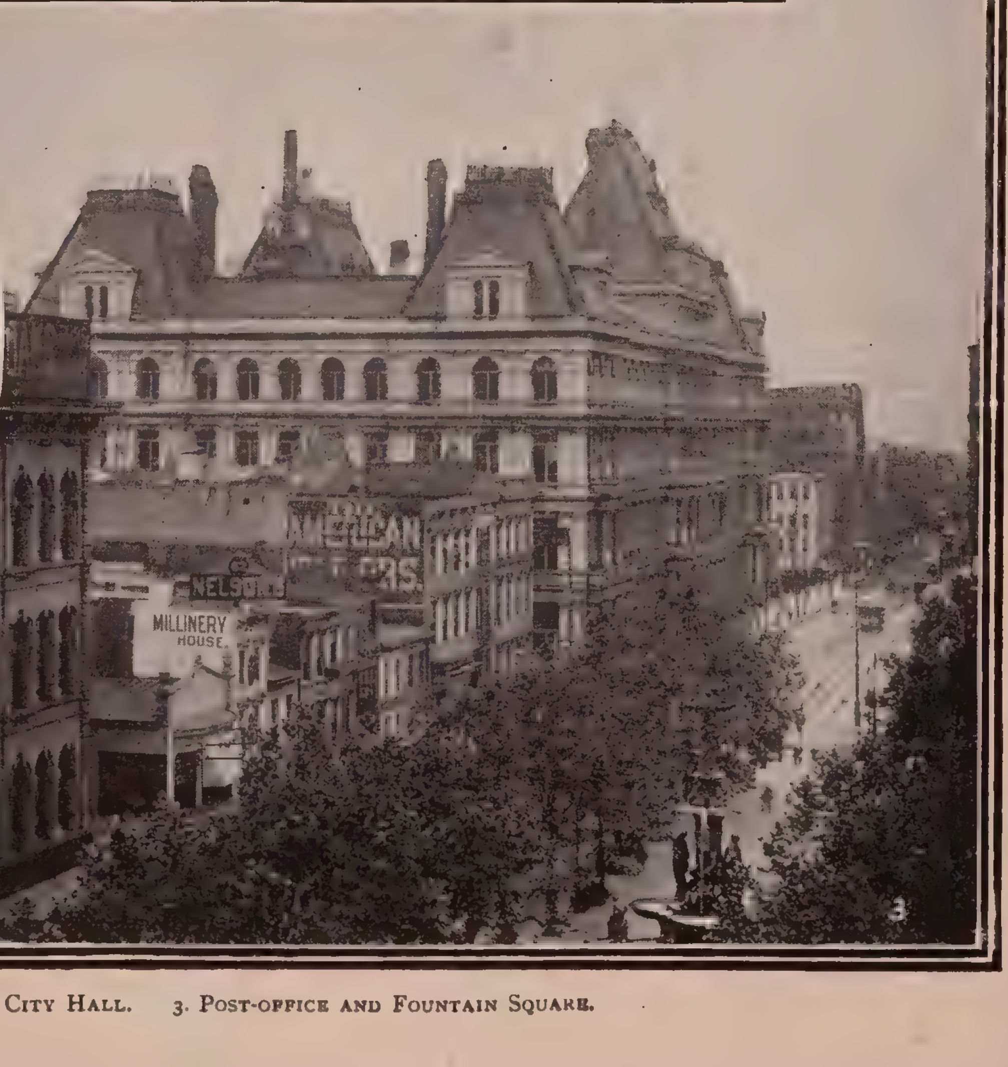


1. Euclid Avenue 2. Hollenden Hotel. 3. Arcade.

CINCINNATI.

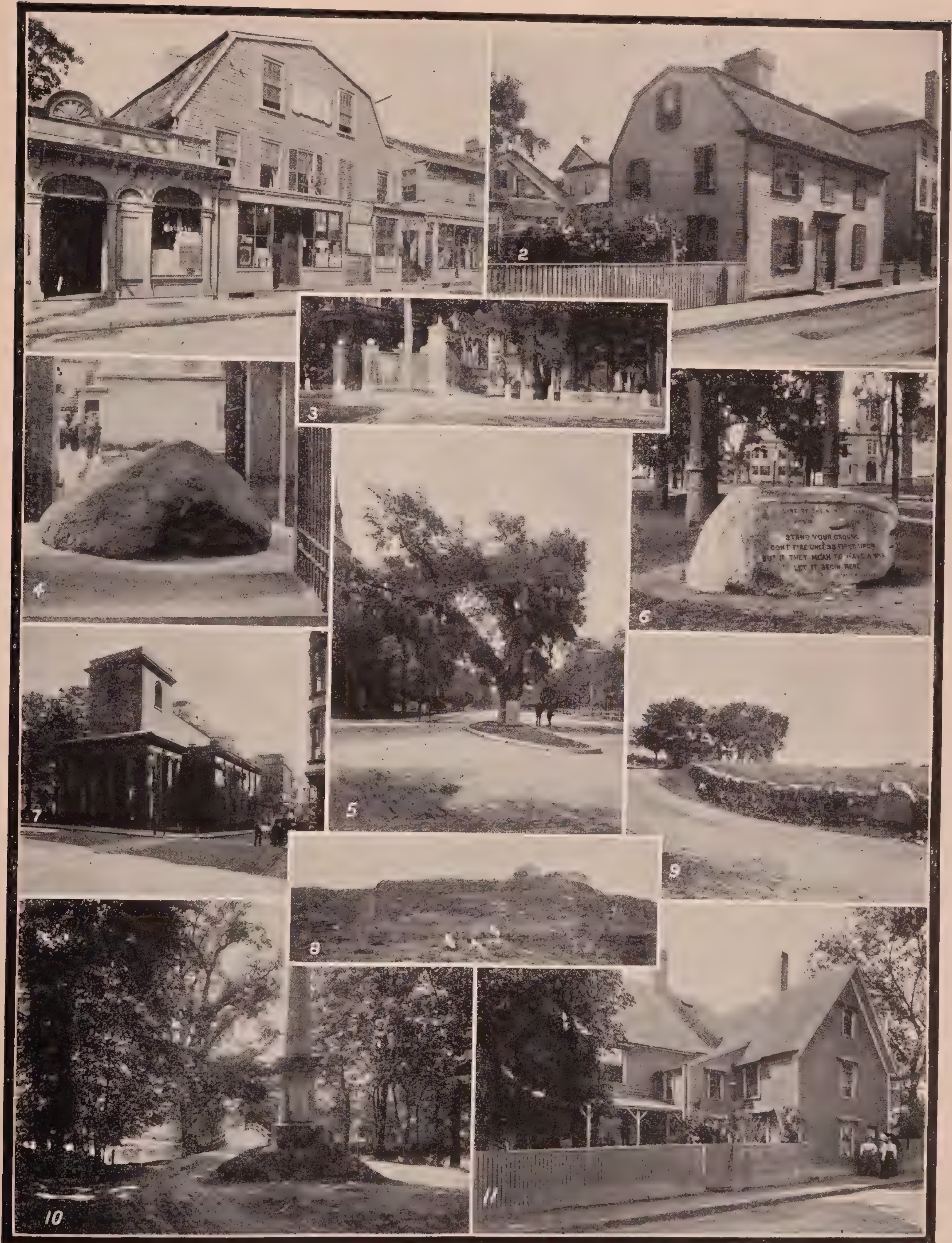






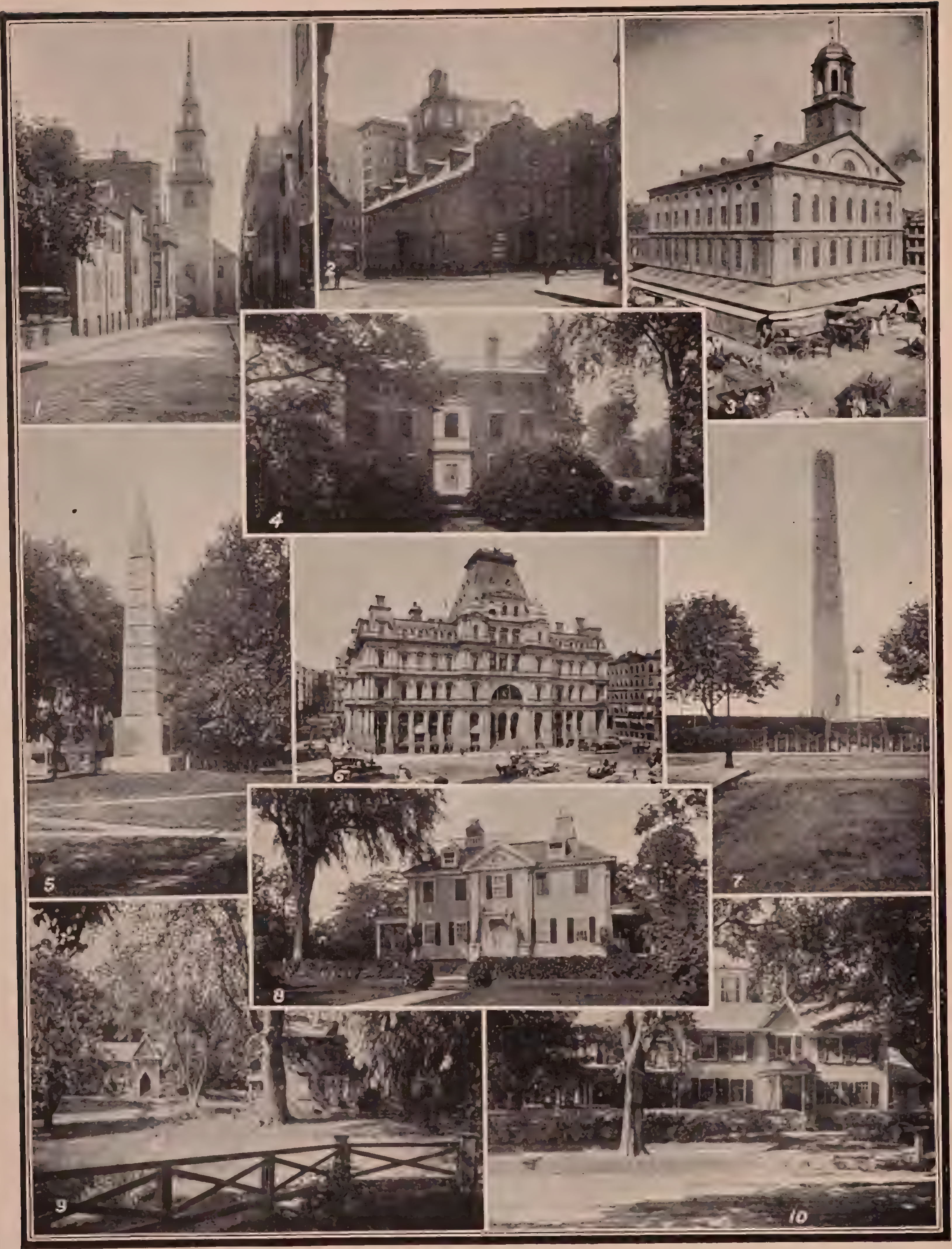
1. Fourth Street. 2. City Hall. 3. Post-office and Fountain Square.

BOSTON AND SURROUNDINGS.



1. Roger Williams' House, Salem. 2. Hawthorne's Birthplace, Salem. 3. Harvard Gate, Cambridge. 4. Plymouth Rock, Plymouth
5. Old Elm, Cambridge. 6. The Scene of the Scrimmage at Lexington. 7. King's Chapel, Boston. 8. Merriam's Corner, Concord.
9. Gallows Hill, Salem. 10. Old North Bridge Mounment, Concord. 11. House of Seven Gables, Salem.

BOSTON AND SURROUNDINGS.



1. Christ Church. 2. Old State House. 3. Faneuil Hall. 4. James Russell Lowell's Home, Cambridge
5. Soldiers' Monument, Concord. 6. Post-office, Devonshire. 7. Bunker Hill Monument. 8. Longfellow's Home, Cambridge.
9. Orchard House and School of Philosophy, Concord. 10. Hawthorne's Wayside Inn, Concord.

CIVIL SERVICE

What the Civil Service is

Special Instructions

TO APPLICANTS FOR

Civil Service Positions

HOW EXAMINATIONS ARE CONDUCTED

REQUIREMENTS FOR SUCCESS IN THE VARIOUS GRADES AND BRANCHES

OFFICIAL RULES AND METHODS OF THE CIVIL SERVICE COMMISSION

The Machinery of Civil Service

How, When and Where
TO
Apply for Examination

AN OFFICIAL MANUAL OF DIRECTIONS

EMBRACING

Manner and Form of Application
Who Cannot Apply.
Age Limit.
Time Limit.
Citizenship.
Residence.
Grades of Subjects.
Weights of Subjects.
Average Percentages.
Specimen Questions Asked.
Words for Spelling.
Sample Questions in Arithmetic.
Letter Writing.
Penmanship.
Geography.
Specially Arranged Examinations.
List of Special Positions.
Rating of Examination Papers.
Rules for Marking and Rating.
Methods of Appointment.
Period of Eligibility.
Certification of Eligibles.
Preferences in Appointments.
Apportionment of Appointments.
Non-resident Eligibles.
Difficulty of Apportionment.
Prospects of Appointment.
Salary of Eligibles.
Whom Chances Favor.

Bringing down to every aspirant for Civil Service positions the precise information requisite for passing examinations with comfort and success.

Day. **A. S.** *daeg;* **Sanskrit,** *dah.* **Significance,** *burn.*
Night. **A. S.** *night;* **Greek,** *nux.* **Significance,** *shadow, gloom.*

ORIGIN OF MONTH NAMES:

JANUARY- From Latin Divinity Janus, God of the Sun and Year, to whom the Month was sacred

FEBRUARY- From Februarius, Month of Expiation on the 15th of the Month was held the Roman festival of Purification.

MARCH- From Mars, Roman God of War.

APRIL- From Latin Aprilis, Month of Opening Buds

MAY- From the Goddess Maia, worshipped at Rome on the first day of the month.

JUNE- From the Roman Goddess Juno, worshipped as Queen of Heaven.

JULY- From Julius Cæsar, it being his birth month.

AUGUST- The old Roman Sixth Month, counting from March changed to August in honor of Augustus Cæsar.

SEPTEMBER- From Latin Septem, Seven, being the Seventh month of the old Roman Year, beginning with March

OCTOBER- From Latin Octo, eight, being the eighth month of the old Roman Year.

NOVEMBER- From Latin Novem, Nine, being the ninth month of the old Roman Year

DECEMBER- From Latin Decem, Ten, being the tenth month of the old Roman Year.

ORIGIN OF DAY NAMES.

SUNDAY- Sun-day because anciently dedicated to the Sun or its worship.

MONDAY- Moon-day; day sacred to the moon.

TUESDAY- Anglo-Saxon Tiwes-daeg day of Tiw, the God of War.

WEDNESDAY.- Anglo Saxon Wodnes-daeg day of Woden, the highest of the Teutonic Gods

THURSDAY- Thor-day from Thor the Scandinavian God of Thunder.

FRIDAY.- Anglo-Saxon Frige-daeg Day of Frigu, the Goddess of Marriage.

SATURDAY- Anglo-Saxon Sæter-daeg day of the Roman God Saturn.

Week. **A. S.** *wice.* **Significance,** *change, turn.*
Year. **A. S.** *gear;* **Greek,** *ora.* **Significance,** *season.*

CIVIL SERVICE INSTRUCTION.

For the law creating a Civil Service Commission, the general object of such Commission, the classification of its work, and the principles on which it proceeds, see pp. 129, 701. Here are given those **Special Instructions to Applicants** for Civil Service positions which are necessary to enable them to file their applications intelligently and pass through the examinations with comfort and success.

While these instructions apply to the National Civil Service, they may none the less prove helpful to applicants for positions in State and municipal governments, in many of which civil service principles have, of late, been carried down to clerks, artisans, inspectors, policemen, firemen, etc.

1. **Districts.** For the purpose of working the Civil Service machinery, the country is divided into districts, each with its headquarters, and each comprising its quota of classified offices—Customs Offices, Post Offices, etc.

2. **Examinations.** Civil Service examinations are now held in every State and Territory except Alaska. The same form of examination prevails in Porto Rico and Hawaii as in the United States, but a special form prevails in the Philippines. Examinations in States that have received more than their quota of appointments are postponed until their quota is reduced. Persons who have filed applications or passed examinations should inform the Commission of any change in their post-office addresses. Examinations, except in special cases when eligibles are needed, are held twice a year, spring and fall. The Commission sends out semi-annual notices of the times and places of such examinations, together with a schedule of the kinds of service, or offices, for which examinations will be held.

3. **Places and Dates.** An applicant is not required to be examined at his place of residence. He may be examined at any time and place mentioned in the notice or schedule sent out by the Commission.

4. **How to Apply.** Persons wishing to take an examination for the Department service at Washington should write to the United States Civil Service Commission, Washington, D. C., for a blank form of application, stating the kind of examination desired. The application when received should be carefully filled out according to instructions found thereon, and returned by mail to said Commission without delay. If the application has been properly executed, mailed in time, and the applicant found entitled, a card will be sent admitting the applicant to examination.

Examinations for other than Department service are conducted through local boards of examiners, and applications for blanks should be made to the heads of such boards.

5. **Non-Eligibles.** No person is eligible for Civil Service examination—

(*a*) Who is not a citizen of or does not owe allegiance to the United States.

(*b*) Who is not within the age limitations prescribed for the examination for which he applies.

(*c*) Who is physically disqualified for the service which he seeks.

(*d*) Who is addicted to the habitual use of intoxicating beverages to excess.

(*e*) Who has within approximately one year passed in an examination for the same position or for any position covered by the same examination for which it is desired to again apply.

(*f*) Who is enlisted in the United States Army or Navy, and has not secured permission for his examination from the Secretary of War or the Secretary of the Navy, respectively.

(*g*) Who has been dismissed from the public service for delinquency or misconduct within one year preceding the date of his application.

(*h*) Who has failed after probation to receive absolute appointment to the position for which he again applies within one year from the date of the expiration of his probationary service.

(*i*) Who has made a false statement in his application, or has been guilty of fraud or deceit in any manner connected with his application or examination, or has been guilty of crime or infamous or notoriously disgraceful conduct.

(*j*) Soldiers or sailors discharged for desertion, under section 1998, R. S.

6. **Age Limit.** The age limitations applicable to examinations are usually stated in the semi-annual call of the Commission in connection with the kinds of examinations called for.

7. **Time Limit.** All examination papers are sent by the Commission to the place of examination. Applicants should, therefore, forward their applications an ample time before the examinations, to admit of making preparations for them. Applications not made in time will be returned to the applicants. No applica-

tion will be accepted which is dated more than six months before its receipt by the Commission; nor will any recommendations be received other than those called for by the Commission.

8. **Citizenship.** Applicants must make oath to their citizenship in or their allegiance to the United States.

(*a*) Foreign-born citizens must furnish proof of citizenship.

(*b*) Naturalized citizens must furnish their certificates of naturalization.

(*c*) Foreign-born persons claiming that their parents were citizens of the United States at the time of their birth must establish the fact by the oath of two disinterested witnesses.

(*d*) A foreign-born citizen naturalized through the naturalization of his parents must furnish their certificates of naturalization and the sworn proof of two disinterested citizens that he is their child.

(*e*) A woman applicant claiming naturalization through marriage to a citizen must furnish evidence of his citizenship and of her marriage to him.

9. **Residence.** An applicant must swear, in his application, to his place of legal residence, which must be shown continuously to the exact date of his application. By legal residence is meant the place where one is entitled to vote. When the application is for an examination for a position in Washington, a legal residence in his county for six months prior to his application must be established by the applicant.

10. **Different Applications.** Should a person desire an examination for more than one position, he must file a separate application for each examination.

11. **Change.** A person may change, upon written request, the place, date and kind of examination mentioned in his application, but the form required for the examination must remain the same.

12. **Records.** Applications, approved or disapproved, and all examination papers become the property of the Commission and a part of its records.

13. **Stationery, Etc.** Applicants must provide in examination, pens, penholders, pencils, erasers and ink, but no paper or blotters. Stenographers, typewriters, bookkeepers, draftsmen and others requiring machines or implements must furnish them.

14. **Re-examination.** A person who has passed an examination cannot be re-examined for the same position within a year. A person who fails in an examination may, on filing a new application, enter the next examination.

Descriptions of Examinations.

15. **Grade Subjects.** There are three grades of general examinations, the first being most difficult, the third least difficult.

16. **Weights and Average Percentages.** The different subjects in each examination are given relative weights according to their importance. These weights represent the value of each subject in the whole examination. To obtain the average percentage of an examination, multiply the rating obtained in each subject by the relative weight of that subject, add the products, and divide the sum of the products by the sum of the relative weights. The quotient is the average percentage for that examination.

17. **First-Grade Subjects.** The subjects selected for a first-grade general examination are those whose satisfactory treatment is supposed to equip an applicant for the Customs service. The time allowed for examination is five hours. Applicants must be at least 20 years of age. Here is a sample of these subjects:

SUBJECTS.	RELATIVE WEIGHTS.
1. Spelling	10
2. Arithmetic	20
3. Letter Writing	15
4. Penmanship	10
5. Copying	15
6. Geography	10
7. Time Consumed in Examination	20
Total	100

18. **Second-Grade Subjects.** These are designed to test the merits of applicants for both Customs and Postal service. Applicants for Postal service must be between 18 and 45 years of age, of not less than 5 feet 4 inches in height, and not less than 125 pounds in weight. The subjects and weights are as follows:

SECOND GRADE.

CUSTOMS SERVICE. Time allowed, 4 hours.		POSTAL SERVICE. Time allowed, 4½ hours.	
Subjects.	Relative Weights.	Subjects.	Relative Weights.
1. Spelling	15	1. Spelling	10
2. Arithmetic	20	2. Arithmetic	20
3. Letter Writing	15	3 Letter Writing	20
4. Penmanship	10	4. Penmanship	20
5. Copying from plain copy	15	5. Copying from plain copy	10
6. U.S. Geography	15	6. U.S. Geography	10
7. Time consumed in Examination	10	7. Reading Addresses	10
Total	100	Total	100

19. **Third-Grade Subjects.** These are designed to test applicants for a lower grade of Customs service. Time allowed, three hours.

SUBJECTS.	RELATIVE WEIGHTS.
1. Spelling	20
2. Arithmetic	20
3. Letter Writing	20
4. Penmanship	20
5. Copying from plain copy	20
Total	100

Specimen Questions for First-grade Examination.

The following questions and tests have been used in former Civil Service examinations, and they will serve to illustrate the method of carrying on examinations and what is expected of the applicant.

Spelling. Spelling is dictated by the examiner. The words are written by the competitor in the blank spaces indicated on the first sheet of the examination. All words should be commenced with capital letters. The examiner pronounces each word and gives its definition as printed below. The competitor is required to write only the word, and not its definition.

Ginger: The root of a medical plant. *Certificate:* A written testimony; as, a certificate of stock. *Promissory:* Containing a promise; as, a promissory note. *Seizing:* Taking suddenly. *Zinc:* A whitish metal. *Adjacent:* Lying near or bordering on. *Properly:* In a proper or right manner. *Schenectady:* A city of the United States. *Opportunity:* A fit or convenient time. *Insertion:* The act of placing in; as, the insertion of an advertisement. *Usage:* Custom in using; as, commercial usage. *Facilitate:* To make easy; as, to facilitate business. *Legible:* Capable of being read; as, a legible signature. *California:* One of the United States. *Flannel:* A soft woolen cloth of a loose texture. *Business:* Occupation or trade. *Handkerchief:* A piece of cloth for wiping the face or nose. *Strychnine:* A powerful poison. *Concede:* To give up; to yield; as, to concede a point. *Souvenir:* A token of remembrance; a keepsake.

Arithmetic. In solving problems the processes should be not merely indicated, but all the figures necessary in solving each problem should be given in full. The answer to each problem should be indicated by writing "Ans." after it.

1. This question comprises a test in adding numbers crosswise and lengthwise. There are usually three columns of about twelve numbers each to be added. **2.** Divide $47\frac{3}{25}$ by 7⅗, multiply the quotient by 3⅘, and to the product add 0.0907 of 214.6. **3.** A grocer sold goods to a customer amounting to $352, by weights averaging 15¼ ounces to the pound. He afterwards sold to the same customer goods amounting to $320, by weights averaging 16½ ounces to the pound. How much did the grocer make or lose by the false weights? **4.** The appropriation for the Civil Service Commission for the fiscal year ended June 30, 1897, was $98,340. During that year 50,000 persons were examined. If 34 per cent. of this number failed to pass, and 17½ per cent. of those who passed were appointed, what was the average cost to the Government of each appointment? **5.** On December 1, 1900, Thomas Hammond, a commission merchant, owed James Wilson on account $343.75. December 3 Wilson shipped Hammond 8,500 pounds of pork, which he sold at 12 cents per pound, charging ½ per cent. commission. December 7 Hammond sold Wilson 80 head of cattle, total weight 105,960 pounds, at $4.25 per 100 pounds. December 14 Hammond sold for Wilson 1,800 bushels of wheat at 75 cents per bushel, charging him 1 per cent. commission and $25 for storage. December 26 Wilson bought of Hammond 128,600 feet of lumber at $3.25 per 1,000 feet. December 27 Hammond received from Wilson a note for $1,250, due in 60 days. December 29 Wilson paid a draft drawn on him by Hammond for $460. Make an itemized statement of the above account as it should appear taken from the books of Wilson; make a proper heading, close the account, and bring down the balance as it should appear January 1, 1901.

Letter Writing. The competitor is permitted to write on either one of two subjects given. The following subject has been used: Write a letter of not less than 150 words, giving your views as to the advantages and disadvantages of employment in the departmental service in Washington.

This exercise is designed to test the competitor's knowledge of simple English composition and his general intelligence. In rating the letter, its errors in form and address, in spelling, capitalization, punctuation, syntax and style, and its treatment of the subject, are considered.

Penmanship. The rating on penmanship will be determined by legibility, rapidity, neatness and general appearance, and by correctness and uniformity in the formation of words, letters and punctuation marks, in the exercise of the fifth subject—copying from plain copy. No particular style of penmanship is preferred.

Copying. N. B.—Spelling, use of capitals, and all omissions and mistakes will be taken into consideration in rating this subject.

Directions to the competitor.—Write on the accompanying sheet an *exact* copy of the first paragraph given below, including capitalization, punctuation, etc.

SEC. 38. That no export duties shall be levied or collected on exports from Porto Rico; but taxes and assessments on property, and license fees for franchises, privileges and concessions may be imposed for the purpose of the insular and municipal government: *Provided, however*, that no public indebtedness shall be allowed in excess of 7 per-centum of the aggregate tax valuation of its property.

It is usual to follow this copying exercise with one defectively written, to be corrected by the competitor.

Geography. N. B.—Competitors are cautioned not to exceed the requirements of the questions in their answers, as no credit will be given for additional information.

1. Name States as follows: Two that border on the Columbia River; two that border on both the Missouri and Mississippi Rivers; two that border on both Virginia and the Ohio River; two that border on New Jersey; two that border on the Savannah River. 2. In what State is each of the following named: Penobscot Bay, Corpus Christi Bay, Puget Sound, Pearl River, Oneida Lake. 3. Name the largest city in each of the following-named States, and name the river or body of water on which each city required is situated: Connecticut, Mississippi, Nebraska, Minnesota, Ohio.

4. In what State is each of the following-named prominent cities located: Racine, Bangor, Allegheny, Charlotte, Cairo, Los Angeles, Shreveport, Fargo, Evansville, Ogdensburg. **5.** In what foreign country, colony or possession is each of the following-named prominent cities: Bremen, Buenos Ayres, Yokohama, Cape Town, Havre, Melbourne, Adrianople, Ottawa, Teheran, Panama.

Time Consumed in Examination. This, as already seen, has a relative weight of 20.

SPECIMEN QUESTIONS

For Second-grade Examination.

The following questions and tests which have been used indicate the general character of these subjects:

Spelling. Spelling is dictated by the examiner. The words are written by the competitor in the blank spaces indicated on the first sheet of the examination. All words should be commenced with capital letters. The examiner pronounces each word and gives its definition. The competitor is required to write only the word, and not its definition.

Manual: Done with the hands; as, manual labor. *Newspaper:* A printed paper that gives the news. *Exceed:* To surpass or go beyond; as, to exceed one's authority. *Eighth:* Next in order after seventh. *Wisconsin:* One of the United States. *Vehicle:* That in which anything may be carried. *Peaceable:* Gentle or peaceful. *Eager:* Keenly desirous; as, eager to go. *Cellar:* A storeroom under a house. *Delicate:* Very nice; as, a delicate flower. *Assign:* To set apart; as, to assign to duty. *Conceal:* To hide or secrete; as, to conceal valuables. *Minute:* The sixtieth part of an hour. *Benefit:* Advantage or profit. *Awning:* A cover spread for shade. *Forward:* To send toward a destination; as, to forward mail. *Withhold:* To hold back; as, to withhold one's pay. *Diligent:* Busy or active; as, a diligent clerk. *Offered:* Presented for acceptance or rejection. *Station:* A stopping place; as, a railway station.

Arithmetic. In solving problems the processes should be not merely indicated, but all the figures necessary in solving each problem should be given in full. The answer to each problem should be indicated by writing "Ans." after it.

1. Add the following, and from the sum subtract 32,885,696 (here will be given a short column of figures). **2.** Multiply $7\frac{2}{25}$ by 36.8, and divide the product by 1.92. Solve by decimals. **3.** A carrier can assort 43 letters or 37 papers in a minute. At this rate, how many hours will it take him to assort 3,655 letters and 185 pounds of papers, averaging 7 papers to the pound? **4.** A lot which was 53 feet wide and 150 feet long sold for $8,347.50, which was one-fourth more than it cost. What was the cost per square foot? **5.** In a certain mail there are 294 pounds 14 ounces of newspapers weighing at the rate of 3 papers to every 7 ounces. How many papers are there in the mail? 16 ounces = 1 pound.

Letter Writing. The competitor is permitted to write on either one of two subjects given. The following subject has been used: Write a letter of not less than 125 words, giving your views as to the advantages derived from free public libraries in the principal cities of your State.

This exercise is designed chiefly to test the competitor's skill in simple English composition. In rating the letter, its errors in form and address, in spelling, capitalization, punctuation, syntax and style, and its adherence to the subject, will be considered.

Penmanship. The rating on penmanship will be determined by legibility, rapidity, neatness and general appearance, and by correctness and uniformity in the formation of words, letters and punctuation marks in the exercise of the fifth subject—copying from plain copy. No particular style of penmanship is preferred.

Copying from Plain Copy. N. B.—Paragraph, spell, capitalize and punctuate precisely as in the copy. All omissions and mistakes will be taken into consideration in rating this subject.

Make an exact written copy of the following:

No recommendation of an applicant, competitor, or eligible involving any disclosure of his political or religious opinions or affiliation shall be received, filed, or considered by the Commission, by any board of examiners, or by any nominating or appointing officer. In making removals or reductions, or in imposing punishment for delinquency or misconduct, penalties like in character shall be imposed for like offenses, and action thereupon shall be taken irrespective of the political or religious opinions or affiliations of the offenders. A person holding a position on the date said position is classified under the civil-service act shall be entitled to all the rights and benefits possessed by persons of the same class or grade appointed upon examination under the provisions of said act.

Geography. Questions are similar to those shown under first grade, except that no questions relating to foreign cities are included.

Time Consumed in Examination. This, as has already been seen, has a weight of 10, for Customs service.

Reading Addresses (Postal Service). This exercise consists of the reading by the competitor of 25 cards, on each of which is written a name and address. Sample cards cannot be furnished.

SPECIMEN QUESTIONS

For Third-grade Examination.

The following questions and tests which have been used indicate the general character of these subjects:

Spelling. Spelling is dictated by the examiner. The words are written by the competitor in the blank spaces indicated on the first sheet of the examination. All words should be commenced with capital letters. The examiner pronounces each word and gives its definition. The competitor is required to write only the word, and not its definition.

Sugar: A sweet substance made from the juice of the sugar cane. *Pledge:* Something given as security. *Cashier:* One who has charge of money in a bank. *Figure:* A mark representing a number. *Carrying:* Conveying or transporting in any way. *Breadth:* The measure from side to side. *Sheet:* The amount of paper made in one body or piece; as, a sheet of paper. *Easily:* In an easy manner. *Frontier:* The border or limits of a country. *Patience:* The state or quality of being patient. *Guess:* The act of guessing; as, to guess at one's weight. *Threat:* The act of threatening; as, to make a threat. *Diamond:* A precious gem. *Visit:* To go to see; as, to visit a friend. *Repair:* To mend or make over; as, to repair clothes. *People:* The body of persons composing a nation; as, the American people. *Require:* To be in need of; as, to require money. *Grease:* Soft animal fat. *Answer:* To reply to; as, to answer a letter. *Exist:* To live; as, to exist in poverty.

Arithmetic. In solving problems the processes should be not merely indicated, but all the figures necessary in solving each problem should be given in full. The answer to each problem should be indicated by writing "Ans." after it.

1. (This question will consist of a short column of figures to be added.) **2.** Divide 2,408,588 by 4,732. **3.** Multiply 8,643 by 608, and then subtract 98,746. **4.** A merchant, who spent $225, bought 65 pounds of butter at 30 cents per pound, 84 barrels of apples at $2.25 per barrel, and spent the remainder for coffee. How much did he spend for coffee? **5.** During the month of August 450,000 bushels of wheat were shipped from a certain port. During September 87,960 more bushels were shipped than during August. What was the total number of bushels shipped in the two months.

Letter Writing. The competitor is permitted to write on either one of two subjects given. The following subject has been used: Write a letter containing not less than 100 words, stating some of the advantages now derived by mankind from the art of printing.

This exercise is designed chiefly to test the competitor's skill in simple English composition. In rating the letter, its errors in form and address, in spelling, capitalization, punctuation, syntax and style, and its adherence to the subject, will be considered.

Penmanship. The rating on penmanship will be determined by legibility, rapidity, neatness and general appearance, and by correctness and uniformity in the formation of words, letters and punctuation marks in the exercise of the fifth subject—copying from plain copy. No particular style of penmanship is preferred.

Copying from Plain Copy. N. B.—Paragraph, spell, capitalize and punctuate precisely as in the copy. All omissions and mistakes will be taken into consideration in rating this subject.

Make an exact written copy of the following:

The present postal policy is to carry newspapers in some cases free, and in all other cases at much lower rates of postage than is charged for letters; the one being for the public weal, while the other is for private benefit. If the telegraph becomes a part of the service it will still be the duty of the Department to transmit telegrams for the press at much lower rates than for private individuals.

Specially Arranged Examinations.

Besides the graded subjects for general examinations, as already seen, there are very many others specially arranged to test the qualifications of applicants for positions which require more than mere elementary knowledge. As samples of these are found:

1. **Assistant Surgeon, Public Health and Marine-Hospital Service.** Age, 20 years or over; application form, 1312; time, two days of seven hours each; medical certificate filed with application. Subjects of examination and relative weights on a scale of 100. Subjects:—*Letter Writing,* weight 5; *Anatomy and Physiology,* 15; *Surgery and Surgical Pathology,* 20; *Chemistry and Therapeutics,* 10; *Bacteriology and Hygiene,* 10; *Practice, Diagnosis and General Pathology,* 25; *Obstetrics and Gynecology,* 15.

2. **Aid and Deck Officer, Coast and Geodetic Survey.** Age, 18 to 25 years; application form, 1312; medical certificate with application; time, two days of seven hours each. Subjects of examination and relative weights: —*Mathematics,* including algebra, trigonometry and elementary calculus, 15; *Practical Computation,* including logarithms, 15; *Astronomy,* 10; *Physics,* 10; *Surveying,* 10; *Modern Languages,* 10; *Drawing and Descriptive Geometry,* 10; *Training and Experience,* 20.

3. **Apprentice, Departmental Service.** Age limit, 14 to 18 years; application form, 304; time, three hours. Subjects:—*Spelling,* 15; *Arithmetic,* 15; *Letter Writing,* 15; *Penmanship,* 15; *Copying from Plain Copy,* 15; *Training,* 25.

4. **Bookkeeper, Departmental Service.** Age limit, 20 years or over; application form, 304; time, seven hours. Subjects:—*Spelling,* 7½; *Arithmetic,* 12½; *Letter Writing,* 12½; *Penmanship,* 7½; *Copying,* 10; *Practice of Bookkeeping,* 50.

5. **Civil Engineer, Departmental Service.** Age limit, 20 years or over; application form, 1312; time allowed, two days of seven hours each. Subjects:—*Pure and Applied Mathematics,* 20; *Construction and Care of Instruments,* 15; *Theory and Practice of Surveying,* 15; *Design and Construction,* 25; *Training and Experience,* 25.

6. **Draftsman.** There are ten classes of draftsmen connected with the Departmental Service whose examinations are separately provided for, though the subjects in part resemble one another. Their age limit is 20 years or over; application form, 1312; time allowed, two days, as a rule. Subjects:—(For architectural draftsmen.) *Building Material and Construc-*

tion, 25; *Drawing and Design*, 30; *Free-hand Drawing*, 25; *Training and Experience*, 20.

7. **Farmer, Indian Service.** Age limit, 20 years or over; application form, 1093; time, six and one-half hours. Subjects:—*Penmanship*, 5; *Spelling and Copying*, 5; *Farm Economy*, 25; *Account Keeping*, 5; *Practical Carpentering and Blacksmithing*, 15; *Practical Farming and Gardening*, 25; *Farming Experience*, 20.

8. **Internal Revenue.** Age limit, 21 years; application form, 101; time allowed, five hours. Subjects:—*Spelling*, 5; *Practical Arithmetic*, including mensuration, 40; *Letter Writing*, 15; *Penmanship*, 10; *Copying*, 10; *Gauging*, 20.

9. **Mechanical Trades.** Mechanical trades and other non-educational examinations, including positions of BLACKSMITH, CARPENTER, COOK, LAUNDRESS and PLUMBER, Departmental and Indian Services and Quartermaster's Department at Large; COPPERPLATE MAP ENGRAVER, Coast and Geodetic Survey and Geological Survey; FIREMAN, Departmental Service; MARINE STEAM ENGINEER and STATIONARY STEAM ENGINEER, Quartermaster's Department at Large; SCRIPT, SQUARE LETTER, and VIGNETTE ENGRAVER, and PLATE PRINTER, Bureau of Engraving and Printing. No educational tests are required, and it will not be necessary for applicants to appear at any place for examination. Age limit, 20 years or over. Applicants who desire to apply for more than one position must file a separate application for each position desired. No application for any mechanical trade or other non-educational position, other than those mentioned, will be accepted until an examination for such a position is specially announced. For further information concerning examinations for these positions write to the United States Civil Service Commission, Washington, D. C., naming the examination desired.

10. **Stenographers and Typewriters.** Age limit, 18 years or over; application form, 304; time allowed, six hours. Subjects:—*Stenography*, 50; *Copying* (rough draft), 10; *Copying and Spacing*, 10; *Copying from Plain Copy*, 10; *Penmanship*, 10; *Letter Writing*, 5; *Arithmetic*, 5.

The practical test in stenography consists of one exercise of 250 words selected from a speech or some subject containing no technical matter. The dictations are given to all competitors together. A preliminary exercise is given only at the rate of 80 words per minute to familiarize the competitors with the examiner's manner of dictation, but this test is not a part of the examination and should not be transcribed. The regular exercises will then be dictated at different rates of speed, as follows: 80 words, 100 words, 120 words and 140 words per minute. The matter dictated is different for each exercise. All competitors will be required to take and transcribe the dictation at 80 words per minute, but will also be permitted to take any or all of the remaining dictations at the higher rates of speed. At the conclusion of the dictation the competitors will be allowed ten minutes in which to select any one of the remaining exercises which they may wish to transcribe. The notes of all the tests not to be transcribed will be taken up by the examiner and will not be considered in the rating. The notes to be transcribed must be written with the typewriter. Not to exceed forty-five minutes will be allowed for making the transcripts. Competitors who take the 80-word dictation and also transcribe one of the dictations at a higher rate will, in determining the ratings on the stenography test, be given the mark on the exercise in which they have attained the higher percentage on speed and accuracy combined, and the other exercise will not be considered. Both speed and accuracy are given equal weights in the rating, the ratings for speed for the different rates of dictation being as follows: 80 words per minute, 70 per cent. in speed; 100 words per minute, 80 per cent. in speed; 120 words per minute, 90 per cent. in speed; 140 words per minute, 100 per cent. in speed. The rating for accuracy is determined by the correctness of the transcript.

11. **Specially Announced Examinations.** Special examinations to meet the needs of the service are announced from time to time to test qualifications not determined by other examinations given. Those desiring to compete for any of the positions mentioned below, and who have special or technical qualifications, should apply on form No. 376, which is as follows:

Form No. 376.

Application for Information.

............................., 190...

U. S. Civil Service Commission,
Washington, D. C.

GENTLEMEN:

Please send me the blanks required to apply for the ....
.... examination, when the next examination of that kind is announced, and inform me of the date and place of holding it.

Very respectfully,
Signature ....
Address ....
....

NOTE.—Write your name and address plainly, and return this form by mail to the United States Civil Service Commission, Washington, D. C.

12. **List of Special Examinations.** The following is a partial list of the technical and professional positions for which examinations have been held and will be held in the future as the needs of the service may require:

Agrostologist.
Architectural designer, Supervising Architect's Office.
Assistant, Philippine Service.
Assistant in soil survey, Department of Agriculture.
Bibliographer.
Cadet, Revenue-Cutter Service.

Cataloguer.
Chart corrector.
Chemist.
Chinese inspector, Departmental Service.
Computer, architectural, Supervising Architect's Office.
Dairy inspector, Department of Agriculture.
Domestic science teacher, Indian Service.
Editorial clerk.
Electrician.
Entomologist.
Examiner of surveys, General Land Office.
Forestry clerk.
Horticulturist.
Immigrant inspector, Immigration Service.
Inspector of textile fabrics, War or Navy Department.
Instrument maker.
Interpreter, Immigration Service.
Laboratory assistant, National Bureau of Standards.
Librarian.
Lithographer.
Local and assistant inspector of boilers, Steamboat-Inspection Service.
Local and assistant inspector of hulls, Steamboat-Inspection Service.
Magazine attendant, War and Navy Departments.
Map colorer.
Map printer.
Mechanician.
Medical clerk, Pension Office.
Medical inspector and physician, Philippine Service.
Medical interne, Government Hospital for the Insane.
Music teacher, Indian Service.
Nautical expert, Hydrographic Office, Navy Department.
Ornithologist.
Photographer.
Photographic assistant.
Pomologist.
Public document cataloguer, Government Printing Service.
Safe and lock expert.
Stereotyper.
Teacher of agriculture, Indian Service.
Telegrapher.
Telephone operator.
Translator, Departmental Service.
Wireman, Public Buildings.

How Examination Papers are Rated.

Method of Rating. The following method is observed in rating examination papers by the examining division of the Commission:

After an examination is held the papers are arranged by sheets or subjects and are forwarded under seal to the Commission. When they are reached in the order of rating, they are distributed by sheets to the examiners, Examiner A being given all of sheets 1, Examiner B all of sheets 2, Examiner C all of sheets 3, and so on, the sheets being distributed to as many examiners as there are subjects in the particular examination to be rated. After the papers are rated in the first instance they are redistributed, and the first rating is reviewed by other examiners. When all of the papers of an examination have been rated and reviewed, those of each competitor are then for the first time assembled or brought together, his average percentage is ascertained, his declaration envelope is opened, and the declaration sheet to which he has signed his name is attached to his examination papers. The identity of the competitor, therefore, is not disclosed *until his papers have been rated and reviewed and his average percentage determined.* As the charges for specific errors are all fixed by the rules for rating, and as each subject is rated by one examiner and reviewed by another, it will be seen that absolute impartiality, accuracy and uniformity are secured in the work.

Appeals. Appeals from the ratings are sometimes made by competitors, but the prospect of securing a higher rating by such action is very remote. Errors on the part of examiners in making charges are seldom found, as the work of each examiner is verified and checked in every particular by another.

Time. The papers of all the competitors in an examination must be rated at the same time, and no competitor's papers will be made special or be rated in advance of others.

Average Percentages. An average percentage of 70 in all examinations is required for eligibility, except in the case of applicants entitled to preference under section 1754 U. S. Revised Statutes (this applies to soldiers), provided that in examinations comprising both grade and technical subjects in which the technical subjects constitute not less than 50 per cent. of the examination, the competitor must obtain an average percentage of not less than 70 on the technical subjects in addition to an eligible rating on the whole examination in order to become eligible for appointment. Should a competitor fail to obtain an average percentage of 70 on the technical subjects, the remaining subjects will not be rated.

Notice. A notice of ratings will be sent to each person examined as soon as practicable after an examination, whether such person passes or fails to pass. Letters of inquiry concerning the ratings should not be written unless competitors have reason to believe that the notices have miscarried in the mails.

Rules for Rating. As soon as practicable after an examination the papers of the competitors shall be rated and the average percentage of each ascertained.

All examination papers shall be rated under the following rules:

1. Mark every correct answer 100; mark every faulty answer according to its value on a scale of 100, as herein specifically directed, and deduct the sum of the error marks of each answer from 100. The difference between the sum of the error marks of each answer and 100 will be the marks of the answer.

	From 100 deduct—
2. **Spelling.** For each error in spelling when the exercise consists of 20 words.........	5
For each error in capitalization..............	1
For each failure to use the hyphen when required in a compound word; for each wrong use of the hyphen; and for dividing a word, properly written solid, into two or more parts, each part being a distinct word, or for writing a simple word as a compound word......................	1
3. **Copying from Plain Copy.** For each error in spelling, each transposition, each abbreviation not in copy, each failure to capitalize or punctuate according to copy; for each word or figure omitted, repeated, substituted or improperly inserted: *Provided,* That a deduction of 10 shall be	

From 100 deduct—

made for two or more consecutive words, if the words do not constitute more than one-half of a printed line of the copy; that a deduction of 15 shall be made for more than half a line and not to exceed one line; and that a proportionate deduction shall be made for a greater number of printed lines: *And provided further*, That if the copying exercise shall consist of less than five printed lines the charge for the omission, repetition or insertion of one or more printed lines shall be double the charges indicated; for failure to indent as in copy and for each error in paragraphing; for irregularity in left-hand margin; and for signing name or copying the instructions at the head of the exercise 5

For each misdivision of a word at the end of a line and for each omission or improper use of the hyphen in dividing a word at the end of a line; for each word altered, interlined or canceled; for each blot, pen-rest, or minor erasure if not neat; and for using stenographer's period.............. 1

For any other deviations from copy not covered by the foregoing rules, the charges shall be made in the discretion of the examiners.

From 100 deduct—

4. **Copying from Rough Draft, First Grade.** For each error in spelling (no charge to be made for the repeated misspelling of the same word in the same manner); for each error in syntax (no charges to be made for consequential errors); for each word omitted, inserted or substituted which avoids a test or causes an essential change in meaning; for failure to write any transposition, insertion or inclosure as indicated; for restoring a word or words canceled in the copy (only 3 to be charged for restoring any group of words canceled together in copy); for each important word omitted from a phrase or other group of words...................... 3

For making any transposition of a word or group of words not indicated; for each abbreviation; for irregularity in left-hand margin (in each of the three cases indicated according to gravity of error)...... 1 to 3

For writing part of the exercise and then commencing again; for signing name..... 5

For each change in tense or number which does not result in an error of syntax or radical change in meaning (only one charge to be made except for inconsistency); for each word omitted, inserted, substituted or repeated which does not avoid a test or cause an essential change in meaning; for each error in capitalization, punctuation, indentation, paragraphing or in division of words; for each omission of the hyphen or for placing it at the beginning of the line instead of at the end of the preceding line (total charges in either case not to exceed 5); for stenographic periods (only one charge in exercise); for each blot, each word interlined or canceled, each alteration or erasure, if not neat (not more than 5 to be charged for any one interlineation, cancellation, alteration or erasure); for omitting an unimportant word from phrases or other groups of words; for the omission or insertion of a stroke in a letter............ 1

For paraphrasing the language of the text, according to gravity of error............ 5 to 100

5. **Penmanship.** Mark penmanship according to its value on a scale of 100.

In determining the mark on penmanship, legibility, rapidity, neatness and general appearance, as well as correctness and uniformity in the formation of words, letters and punctuation marks, will be considered, and it shall be proper for the examiners to be guided in a general way by the following scheme: Perfect, 100; very excellent, 95 to 90; excellent, 90 to 85; very good, 85 to 80; good, 80 to 75; ordinary, 75 to 70; poor, 70 to 65; very poor, 65 to 50. Below the grade of "very poor," 50 to 10.

6. **Letter Writing.** In marking the letter, its errors in form and address, in spelling, capitalization, punctuation, syntax and style, and its adherence to and treatment of the subject given will be considered, and its value in the judgment of the examiners marked on a scale of 100.

In determining the mark for letter writing it shall be proper for the examiner to be guided in a general way by the following scheme: Excellent, 100 to 90; good, 90 to 80; fair, 80 to 70; ordinary, 70 to 60; poor, 60 to 50; very poor, 50 to 25; practically worthless, 25 to 0.

From 100 deduct—

7. **Arithmetic.** For each wrong process or for each omission of a step in a solution, according to gravity of error............. 10 to 65

For error in, or evasion of, a decimal or a common-fraction test, or for using wrong table in denominate numbers............. 25

For error in computation or copying, for superfluous work not canceled, or for complex method 10

For wrong or omitted punctuation, for fraction in answer not reduced to lowest terms, or for approximate result not sufficiently exact .... 5 to 10

	From 100 deduct—
For wrong or omitted designation, or sign of relation, or for use of superfluous ciphers.	5
For omitting work in full, the correct answer being given, according to quantity of work required in solution	25 to 75
For omitting work in part, according to gravity of error	5 to 35
For giving proof instead of solution, according to gravity of error	10 to 75

Errors not specifically covered by the foregoing rules will be marked in the discretion of the examiners.

8. **Geography.** In marking this subject each answer shall be marked, in the judgment of the examiners, according to its value on a scale of 100.

When the question requires in the answer a specified number of States, countries, cities, rivers or bodies of water, etc., and the answer contains a greater number than is required by the question, no credit shall be given for the answer if any part or point is incorrect, thus rendering the answer ambiguous.

9. **Stenography.** The practical part of this examination consists of one exercise in dictation, of 250 words, to be written by the competitor in stenographic characters, which he must then transcribe. The transcript will be compared with the printed text from which the dictation was given, and charges will be made for errors under the following rules:

	From 100 deduct—
For each word omitted, added, substituted or misspelled, or for the use of the singular instead of the plural, or of the plural instead of the singular, when the grammatical correctness is affected	3
For each transposition	2
For each gross error in capitalization or punctuation; for each error in division of words; for each word repeated; for each failure to use the hyphen when required; for each abbreviation; or for the use of the plural for the singular, or of the singular for the plural, when the grammatical correctness is not affected	1
For interlineations, erasures and lack of neatness	1 to 5

When the mark for accuracy is 10 or less, no credit will be given for speed.

In this examination speed in writing the stenographic notes is weighted equally with accuracy in transcribing them, and will be marked upon the following scale: 70 per cent. when the dictation is at the rate of 80 words per minute, 80 per cent. for 100 words, 90 per cent. for 120 words, and 100 per cent. for 140 or more words per minute.

10. **Practical Tests of Typewriter Examination.** Speed and accuracy will be considered in marking all the practical tests of this examination, each being marked on a scale of 100. In determining the average on each subject, speed will be given a weight of 2 and accuracy a weight of 3.

When the accuracy mark in an exercise is 25 per cent. or less, no credit will be given for speed.

(a) *Copying from Rough Draft.*

	From 100 deduct—
For each error in orthography; for each word or figure inserted, substituted, transposed or omitted (provided that a deduction of 10 shall be made for the omission of two or more consecutive words, if the words omitted do not constitute more than one printed line of the copy; that a deduction of 20 shall be made for the omission of two printed lines or more than one line, and that a proportionate deduction shall be made for the omission of a greater number of printed lines); for each abbreviation; for each failure to capitalize, punctuate or paragraph according to copy; for failure to indent as in copy (only one charge to be made in the exercise); for each variation from copy in the use of parentheses or hyphen, and for gross irregularity in the right-hand margin	5
For each irregularity in left-hand margin; for each case of inconsistent spacing between words, and for each interlineation (total charges in each of the foregoing cases not to exceed 5); for each misdivision of a word at the end of a line, and for each omission of a hyphen in dividing a word at the end of a line	1
For each space in a word, or for crowding letters in a word (total charges not to exceed 10)	2
For each case of inconsistent spacing between lines (total charges not to exceed 10)	3
For erasures, and for each error not specified above	1 to 5

Time consumed will be rated according to the following scale: If the competitor consumes only eight minutes, he will be credited with 100. When the time consumed is more than eight minutes and not more than fifteen minutes, 2 will be deducted from 100 for every minute consumed more than eight minutes. When the time consumed is more than fifteen minutes, three will be deducted from 86 for every minute consumed more than fifteen minutes.

(b) *Copying and Spacing.*

	From 100 deduct—
For the omission of the general head, or of a single line	10
For erroneously spacing or failing to space a word or a line of the general head, or a part of the whole of a minor head; for an error in left margin of left column or stub; for error of spacing between words of stub and first line of colons, and for each error in the placing of a whole column of figures; for the omission of leaders after stub; for the insertion of commas after the items of stub; for each case of erroneous spacing between lines (total charge not to exceed 25); for running into one line a minor head that should be written in two or more lines; for running over a line in the paragraphs at the bottom (total charges not to exceed 15); for each word, minor head, figure or number omitted, inserted or substituted; for each misspelled word or erroneous number; for omitting or misplacing an apostrophe, or erroneously adding *th* to date; for the transposition of a single word, item or line; for each use of —— for .... (total for use throughout exercise, 10), and for each preliminary test on machine	5
For error in right and left position of general head as a whole; for wrong alignment of a minor head (total for the consequential misplacement of a whole line of minor heads, 5); for each error in the use of capitals (total for a whole word, 5), or of the dollar sign; for striking one figure over another so that the reading of the figure is doubtful (total charge for one number, 5); for each error in the use of punctuation marks or hyphens in heads or paragraphs, and for spacing a dashed line (total for the exercise, 5)	3
For an error in the relative right and left position of a line or heading, or in the indentation of the paragraphs (total charge for two or more independent errors in a heading, and for two or more consequential errors in indentation being 3); for each error in spacing between words and after punctuation marks, and for spacing between the figures of a number or the letters of a word; in numbers, for each use of i for 1, for each comma or hyphen omitted, and for each decimal point used for a comma, or vice versa	2
For each use in numbers of I for 1, 1 or L for I, or o for 0 (charge for general use of either throughout exercise, 5), and for striking over, except in cases covered above	1
For irregularities in the margin of a column.	2 to 5
For erroneous length of the dashed lines; for errors in the colons; for erasures and lack of neatness, and for each error not specified above	1 to 5

Time consumed will be marked according to the following scale: If the competitor consumes only fifteen minutes, he will be credited with 100. When the time consumed is more than fifteen minutes and not more than twenty-five minutes, 1 will be deducted from 100 for every minute consumed more than fifteen minutes. When the time consumed is more than twenty-five minutes and not more than thirty-five minutes, 2 will be deducted from 90 for every minute consumed more than twenty-five minutes. When the time consumed is more than thirty-five minutes, 3 will be deducted from 70 for every minute consumed more than thirty-five minutes.

(c) *Copying from Plain Copy.*

This exercise will consist of 450 words. In determining the accuracy, the rating will be made in the discretion of the examiner on 150 words from any part of the exercise, the same part being rated for all competitors in a given examination.

For rules for rating accuracy, see general rules for rating copying from plain copy.

Time consumed will be rated according to the following scale: For a speed of 60 or more words per minute a credit of 100 will be given; for a speed of less than 60 words per minute a deduction of 1 from 100 will be made for every word written at a rate of less than 60 words per minute to and including a rate of 30 words per minute; for a speed of less than 30 words per minute a deduction of 2 from 70 will be made for every word written at a rate of less than 30 words per minute to and including a rate of 20 words per minute. If the exercise is written at a rate of less than 20 words per minute no credit will be given for speed.

11. **Reading of Addresses** (Railway-Mail and Post-office Services). Two marks are given for this subject—one for accuracy, the other for speed. The sum of the marks for accuracy and speed, divided by 2, gives the average for the subject.

A charge of 2 will be made for each error, not exceeding two errors for each card, on the cards which are read within the five minutes allowed for the exercise, and a charge of 4 will be made for each address not read within the five minutes (if there be any such). Subtract the sum of these errors thus found from 100 and the result will be the mark for accuracy. Where competitors receive a rating of 50 or less for accuracy, the rating in speed shall not exceed the rating in accuracy.

12. Speed Tables. To ascertain the mark on speed the following table should be used. The first column indicates the number of minutes and seconds consumed in reading the addresses and the second column the mark for speed.

Time consumed.		Speed mark.	Time consumed.		Speed mark.
Mins.	*secs.*	*Per ct.*	*Mins.*	*secs.*	*Per ct.*
1	30	100	3	25	79
1	40	99	3	30	78
1	50	98	3	35	77
1	55	97	3	40	76
2	0	96	3	45	75
2	05	95	3	50	74
2	10	94	3	55	73
2	15	93	4	0	72
2	20	92	4	05	71
2	25	91	4	10	70
2	30	90	4	15	69
2	35	89	4	20	68
2	40	88	4	25	67
2	45	87	4	30	66
2	50	86	4	35	65
2	55	85	4	40	64
3	0	84	4	45	63
3	05	83	4	50	62
3	10	82	4	55	61
3	15	81	5	0	60
3	20	80			

The above table shows the mark for minutes and fractions of minutes when the competitor reads all the addresses in five minutes or less. If all the addresses are not read within five minutes, the marks will be as follows for the number of cards read:

Cards read.	Speed mark.	Cards read.	Speed mark.
	Per ct.		*Per ct.*
24	58	12	29
23	55	11	26
22	52	10	24
21	50	9	22
20	48	8	19
19	46	7	17
18	43	6	14
17	41	5	12
16	38	4	10
15	36	3	7
14	34	2	5
13	31	1	2

If a competitor is allowed to consume more than five minutes in the reading of the cards, the number of cards considered as read within the prescribed limit will be such proportion of the number of cards actually read as five minutes are to the total number of minutes consumed, and the cards in excess of such number will be treated as if not read.

Method and Prospects of Appointment.

1. Period of Eligibility. The period of eligibility on all registers for original appointment is one year from the date of entering the name on the register, which entry is made as soon as practicable after the rating of the papers. The date of entry of a name on the register is usually but a few days subsequent to the date of the notice of eligibility. The period of eligibility may, however, be extended, in the discretion of the Commission, when the conditions of good administration render it inexpedient to hold a new examination. The extension of the period of eligibility cannot be granted in individual cases, and is always extended to the entire list of eligibles on the particular register to which applied.

Whenever a person whose name is upon more than one register is appointed from one of such registers, his eligibility on all registers of the same or lower grade expires upon such appointment. He may, however, upon his written request at any time within the period for which eligibility would run if not canceled by appointment, have his eligibility revived on one or more of such registers for the balance of such period of eligibility.

2. Certifications. Until requested to certify names for filling a vacancy, the Commission has no information in regard to any vacancy which may exist in any branch of the service. Whenever an appointing officer desires to fill a vacancy by original appointment, he makes requisition upon the Commission for a certification of names, specifying the kind of position, the sex desired, and the salary. Upon receipt of such requisition the Commission takes from the proper register of eligibles the names of the *three* persons standing highest of the sex called for, who indicate in their examination papers that they are willing to accept the salary of the position to be filled, and certifies them to the appointing officer, who is required to make selection. The appointing officer may select any one of the three names. The two remaining names are returned to the register to await further certification.

3. Element of Time. The time of examination is not considered in making certifications, as the highest in average percentage on the register must be certified first, although they may not have been the first examined. No eligible can be certified for appointment more than three times to the same Department or office, but may be certified three times to each of the Executive Departments if reached for such certifications during the year of eligibility. An eligible who declines appointment will not be certified again unless he requests in writing the benefit of the remaining certifications, stating reasons satisfactory to the Commission for declining the appointment.

When the needs of the service require it, certification may be made from a higher grade register for filling a lower grade position.

4. Preference in Appointment. Section 1754 of the Revised Statutes provides that persons honorably discharged from the military or naval service *by reason of disability resulting from wounds received or sickness incurred in the line of duty* shall be preferred for appointments to the civil offices, provided they are found to possess the business capacity necessary for the proper discharge of the duties of such offices. A person who has been allowed preference by the Commission has the following advantages: (*a*) He is released from all age limitations; (*b*) he has to attain an average percentage of only 65 to be eligible, while for all others the average percentage required is 70; (*c*) having attained an average percentage of 65, his name is placed upon the register above, and is certified before, all others who have not been allowed preference; and (*d*) he is released from the law and rules relating to apportionment of appointments. If on the same register the names of more than one preference claimant appear, the name of the claimant having the highest average percentage will, of course, head the list. Preference under this section does not apply to promotion examinations.

5. **Apportionment.** The Civil Service law requires that, as nearly as the conditions of good administration will warrant, appointments to positions in the Departments at Washington shall be apportioned among the several States and Territories and the District of Columbia upon the basis of population as ascertained at the last preceding census. Under the census of 1900 the appointments are distributed among the States and Territories on the basis of one appointment to every ten thousand inhabitants.

This provision of law as to the apportionment of appointments is confined to competitive positions in the Departments at Washington; and of such positions section 2 of Civil Service Rule VII excepts the following from the requirement of apportionment: Plate printer, printer's assistant, skilled helper and operative in the Bureau of Engraving and Printing; positions in the field service of the military staff departments and at army headquarters, mail-bag and mail-lock repair shops, Government Printing Office, Pension Agency and local offices in the District of Columbia; page, apprentice, student, gardener and engraver. Employés in the Departments at Washington may not be exactly distributed among the States in proportion to population, the reason for this being that many of the appointments were made before the Civil Service law became operative, and appointments to unclassified positions, such as laborers, and to positions excepted by law or Executive Order from competitive examinations, are not apportioned among the States.

6. **Non-Resident Eligibles.** When requisition is received by the Commission for certification of eligibles having qualifications of a bookkeeper, clerk, messenger, watchman, engineer, fireman, etc., if there are no eligibles entitled to preference under section 1754, Revised Statutes, certification is made of the three eligibles standing highest of the sex called for who are residents of the State at the time having the least share of appointments. If a requisition calls for a stenographer and typewriter at a salary of $840 or more, certification is made of the three eligibles standing highest on the *entire* register, of the sex called for, who are residents of States which have not received their full share of appointments. This practice is also followed when a requisition is received for the certification of eligibles having qualifications of such a technical character that only a limited number of States provide eligibles. When a requisition is received for a certification of eligibles having qualifications of such an unusual or highly technical character that only a small number of competent persons can be found, the three persons standing highest in average percentage may be certified, regardless of State residence.

7. **Difficulty of Apportionment.** In order that appointments to positions in the Departments at Washington may be apportioned, as nearly as the conditions of good administration warrant, among the States and Territories according to population, whenever an appointment is made, the State of which the appointee is a resident is charged with the appointment; and whenever a person becomes separated from the service, the State to which his appointment stands charged is credited. For several reasons it is not possible to apportion the appointments equally among the states. For example, if a State which may be next entitled to an appointment does not furnish eligibles having the required qualifications, it is necessary to certify eligibles who reside in other States; and the reinstatement of a person who has been separated from the service without delinquency or misconduct must be charged to the State of which he is a resident.

8. **Prospects of Appointment.** It is not possible to estimate with any degree of accuracy the prospects of an eligible for appointment, as the Commission has no knowledge of vacancies occurring in any Department in advance of the receipt of requisitions for certification. Under the law nothing can help and nothing can hinder the certification of a name in the order of its standing on a register. There are usually on the registers more eligibles having ordinary qualifications than are required for appointment. The Commission cannot interfere with the proper exercise of the discretion vested in the appointing officers by the rules, which permit them to select for appointment any one of the three names certified, without regard to political or religious considerations.

9. **Salary.** Entrance to the service is usually at the lowest salary, the higher salaried positions being filled by promotion. As the prospects of promotion vary in different Departments, and depend largely on the efficiency of an employé, the Commission can furnish no specific information on the subject.

10. **Whom Chances Favor.** Male stenographers and typewriters are in demand, and those who are competent and willing to accept the salaries offered have much greater prospects for appointment than applicants for other clerical positions.

CIVIL SERVICE ARITHMETIC

A COMPLETE COURSE OF STUDY
IN THE
ART AND SCIENCE OF NUMBERS

ALL THE MODERN RULES FOR RECKONINGS AND SOLUTIONS, WITH ILLUSTRATIVE EXAMPLES

BY

J. G. MORRELL

Formerly Supt. of Schools, Hudson, Mass

This Civil Service Arithmetic

Supplies a full and effective schooling for those seeking knowledge of figures and accounts, and who desire to qualify for civil service positions

IT ABOUNDS IN

PLAIN PRACTICAL RULES

for working out problems in the various topics of arithmetic, and illustrates them by copious examples.

This is particularly true of the more advanced and practical topics, such as

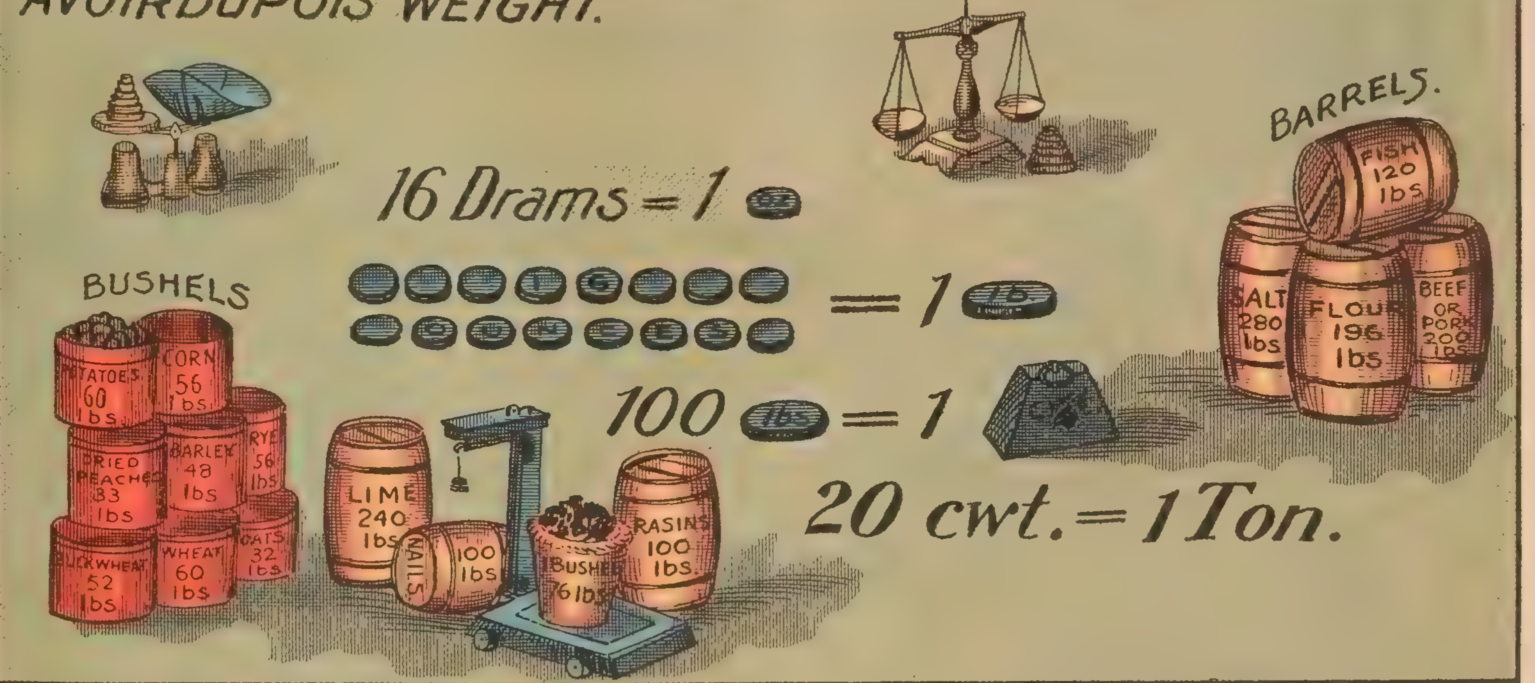
FRACTIONS, MEASUREMENTS AND PERCENTAGES

acquaintance with which is indispensable in every home, every class of business, and every responsible position.

CIVIL SERVICE ARITHMETIC is the work of a practical educator who is up-to-date in his rules and methods, and whose genius provides a manner of instruction that is both pleasing and efficient.

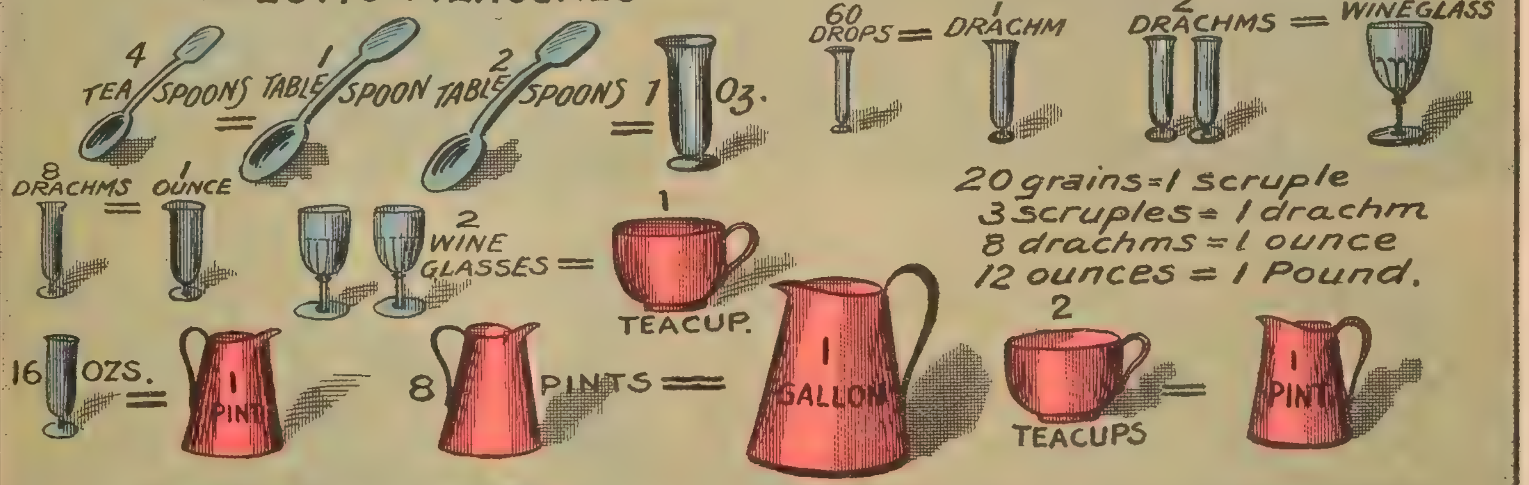
Practical and Useful Measures.

AVOIRDUPOIS WEIGHT.



DOMESTIC MEASURES

APOTHECARIES WEIGHT

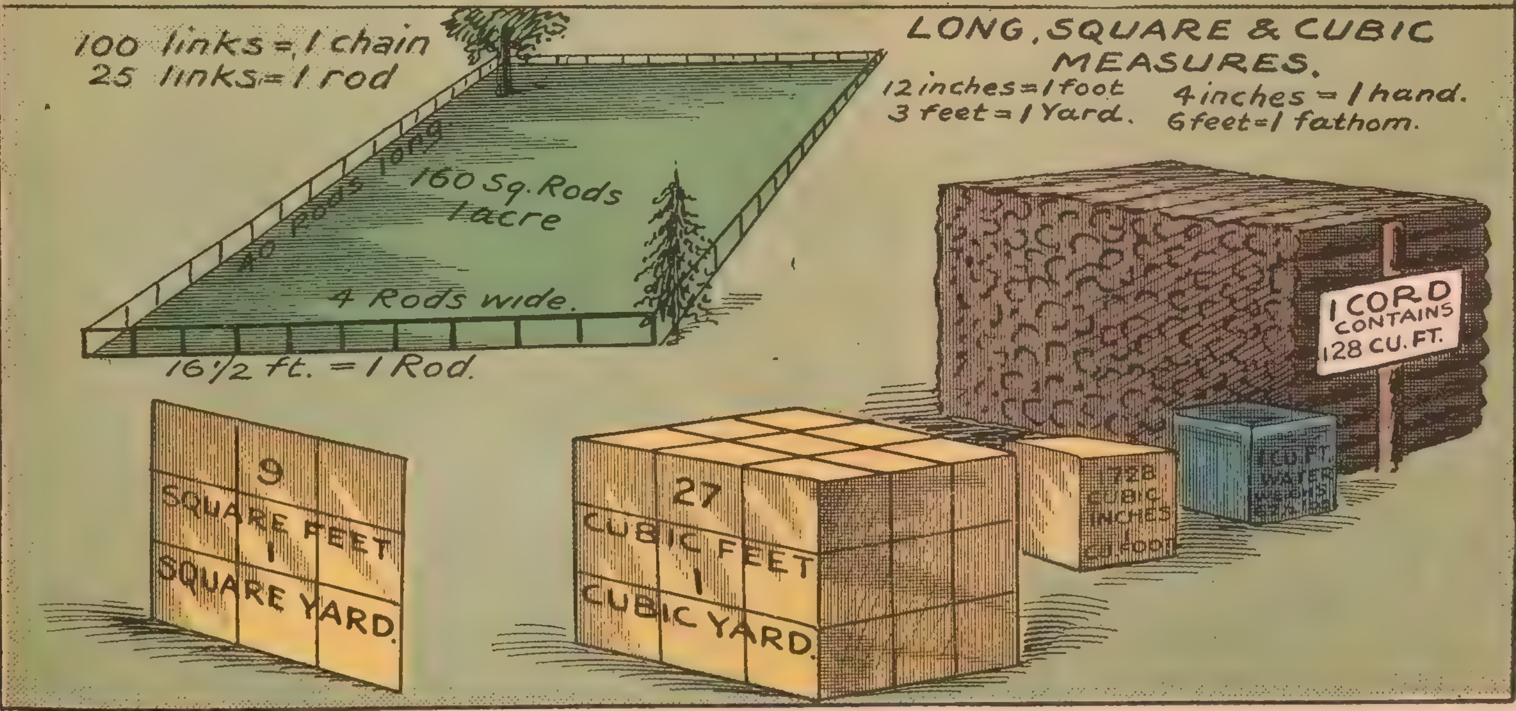


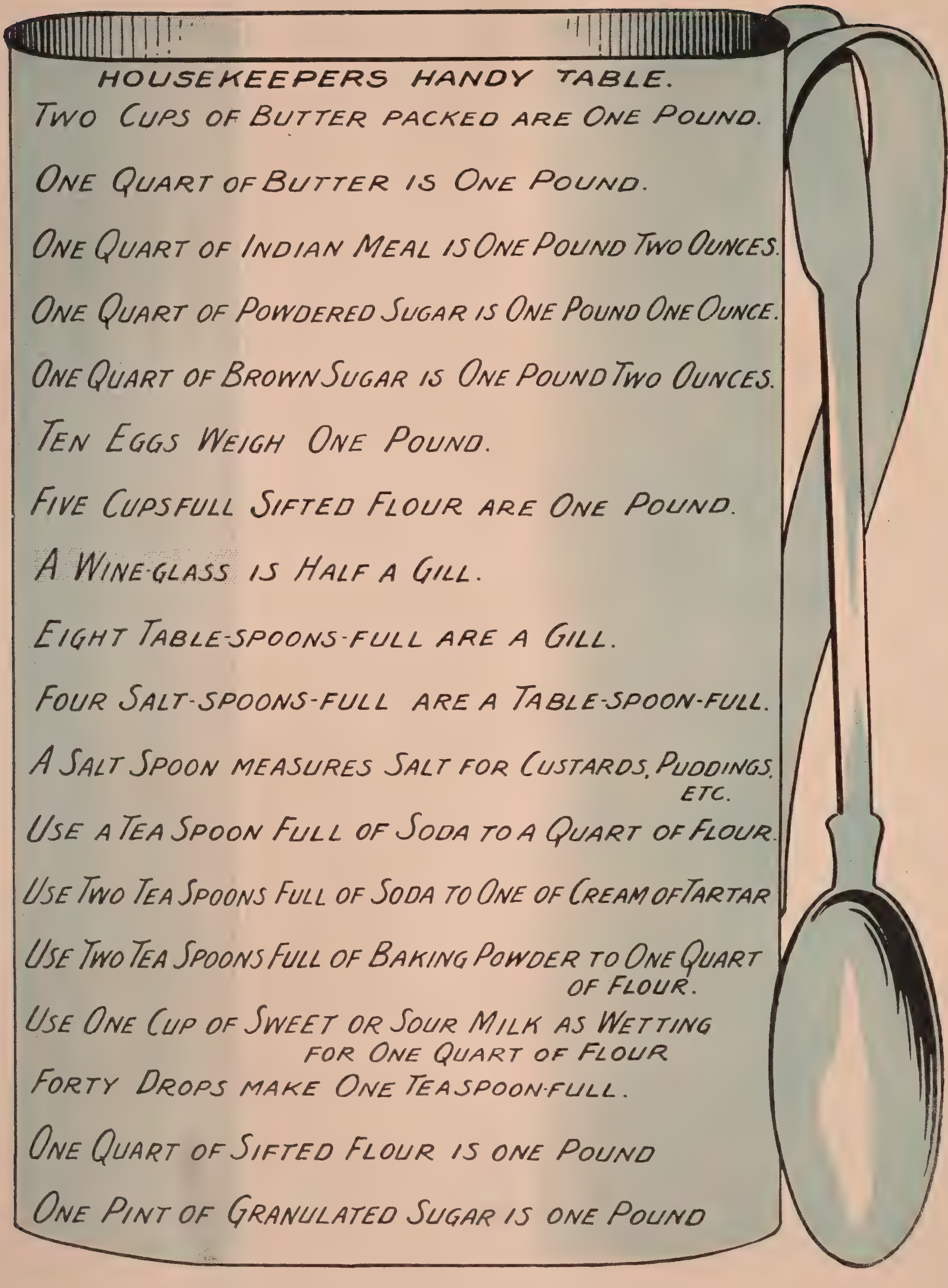
20 grains = 1 scruple
3 scruples = 1 drachm
8 drachms = 1 ounce
12 ounces = 1 Pound.

LONG, SQUARE & CUBIC MEASURES.

12 inches = 1 foot
3 feet = 1 Yard.
4 inches = 1 hand.
6 feet = 1 fathom.

100 links = 1 chain
25 links = 1 rod


40 Rods long
160 Sq. Rods 1 acre
4 Rods wide.
16½ ft. = 1 Rod.
1 CORD CONTAINS 128 CU. FT.
9 SQUARE FEET 1 SQUARE YARD.
27 CUBIC FEET 1 CUBIC YARD.
1728 CUBIC INCHES 1 CU. FOOT
1 CU. FT. WATER WEIGHS



HOUSEKEEPERS HANDY TABLE.

Two Cups of Butter packed are One Pound.

One Quart of Butter is One Pound.

One Quart of Indian Meal is One Pound Two Ounces.

One Quart of Powdered Sugar is One Pound One Ounce.

One Quart of Brown Sugar is One Pound Two Ounces.

Ten Eggs Weigh One Pound.

Five Cupsfull Sifted Flour are One Pound.

A Wine-glass is Half a Gill.

Eight Table-spoons-full are a Gill.

Four Salt-spoons-full are a Table-spoon-full.

A Salt Spoon measures Salt for Custards, Puddings, etc.

Use a Tea Spoon Full of Soda to a Quart of Flour.

Use Two Tea Spoons Full of Soda to One of Cream of Tartar

Use Two Tea Spoons Full of Baking Powder to One Quart of Flour.

Use One Cup of Sweet or Sour Milk as Wetting for One Quart of Flour

Forty Drops make One Teaspoon-full.

One Quart of Sifted Flour is one Pound

One Pint of Granulated Sugar is one Pound

CIVIL SERVICE ARITHMETIC.

This course of study assumes that the learner is more or less familiar with the fundamental processes of arithmetic, and wishes to further pursue the study or to so review it as to enable him to transact with facility the practical every-day business. It is especially prepared to meet the Civil Service requirements.

All that is superfluous in the ordinary text book, such as Compound Proportion, Cube Root, etc., has been purposely omitted.

The work is deductive. Each principle is made to appear from previous knowledge, and is practically applied with sufficient drill to fix it thoroughly in the mind of the learner.

Those desiring to meet simply the Civil Service requirements, need study only the topics best suited to equip them for the examinations.

NOTATION AND NUMERATION.

1. **Notation** is the method of writing numbers by means of symbols.

2. The symbols employed are:

Zero,	One,	Two,	Three,	Four,	Five,	Six,	Seven,	Eight,	Nine.
0,	1,	2,	3,	4,	5,	6,	7,	8,	9.

These are called figures and represent numbers. 0 stands for the words "no number." The others are significant figures and stond for the numbers whose names are written above them.

3. **Numeration** is the naming of numbers.

Any number from 1 to 9 is expressed by a single figure. Those above 9 are a combination of the ten figures given above.

4. For convenience in expressing numbers, figures are assigned places called orders. Those necessary in this work are, Hundreds, Tens, Units. Beginning on the right, a figure in the first order indicates units; in the second, tens; in the third, hundreds.

A figure written in any one of these orders denotes so many of that order. Example: 4 written in the order of tens stands for four tens, written in the order of hundreds it stands for four hundreds.

5. Numbers between nine and one hundred occupy two places, that of tens and units.

1 ten is written 10 and read ten,
2 tens is written 20 and read twenty (two tens),
3 tens is written 30 and read thirty (three tens),

and so on to 90, which is read ninety (nine tens).

6. Numbers from 10 to 20 are written and read:

1 ten and 1 unit is written 11 and read eleven,
1 ten and 2 units is written 12 and read twelve,
1 ten and 3 units is written 13 and read thirteen,
1 ten and 4 units is written 14 and read fourteen,

and so on to 19, which is read nineteen.

7. Numbers from 20 to 30 are written and read:

2 tens and 1 unit is written 21 and read twenty-one,
2 tens and 2 units is written 22 and read twenty-two,

and so on to 29, which is read twenty-nine.

Numbers from 30 to 40 are written and read:

3 tens and 1 unit is written 31 and read thirty-one,
3 tens and 2 units is written 32 and read thirty-two.

The numbers to 99 are written similarly.

8. The hundreds are written by placing the number desired in the order of hundreds and reading it as so many hundreds. Example: Two hundred is written 200, three hundred 300, etc.

9. In writing numbers of three places, such as two hundred forty-five, write the 2 for the hundreds and then the 45, 245. Six hundred eighty-seven, write the 6 for the hundreds and then the 87, 687.

10. **Periods.**—When more than three figures are used in writing a number, they are separated into groups of three, called periods. These periods are separated by a comma, called a separatrix. Each period after the first on the left has three orders, hundreds, tens, units.

11. Periods commonly used are Billions, Millions, Thousands, Units. Any number of Billions from 1 to 999 may be written by simply writing the number in the period of Billions and three ciphers in each of the following periods. Be sure to separate the periods by commas.

(It is assumed that the learner can read and write numbers of three places.)

Write three hundred twenty-five billion.

Indicate the periods by their names. Then it is as easy to write 325 billions as it is to write 325 books.

Billions,	Millions,	Thousands,	Units.
325,	000,	000,	000.

Any number of millions, thousands, etc., may be written likewise.

In the number five million, three thousand twenty-five, notice that the first two figures, hundreds and tens, of the period of thousands, are wanting, and the first one, hundreds, in the period of units. This number would seem to be written

Millions,	Thousands,	Units.
5,	3,	25,

but each period after the first one from the left must have three places. Therefore, when the first one, first two, or all the figures are wanting in any period after the first period from the left, their places are supplied with zeros. Five Millions, three thousands, twenty-five, then would be written:

Millions,	Thousands,	Units.
5,	003,	025.

12. Commit the periods from right to left. Then, in writing numbers do not indicate the name of the period above the figures. Be sure that each period after the first on the left is represented by three places, using zeros where numbers are wanting. Separate periods by commas.

NUMERATION.

13. Read 8526432. Separate the number into periods.

Millions,	Thousands,	Units.
8,	526,	432.

We have eight millions, five hundred twenty-six thousands, four hundred thirty-two.

Observe that, after reading the number in each period, the name of the period is added, excepting in the last or units period.

Write in words 5003025. Separate into periods:

Millions,	Thousands,	Units.
5,	003,	025.

We have five millions, three thousands, twenty-five. Observe that zeros on the left of a number are not considered in reading.

Write, in words, 5000001. Separate into periods, beginning at the right:

Millions,	Thousands,	Units.
5,	000,	001.

We have five million, one.

Observe that when a period has no number, the period is omitted when written in words; that the periods are separated by commas, and that the tens and units are connected by a hyphen, as twenty-five, thirty-four.

ADDITION.

14. **Addition.**—The process of finding one number that equals two or more other numbers is called addition.

15. **Addends.**—Numbers to be added are called addends.

16. **Sum.**—The result of addition is called the sum.

17. **Checks.**—Prove your work by adding in opposite direction.

18. Give daily practice in committing and fixing in the mind the most difficult combinations. In adding 4 and 3, give the sum 7 without naming the 4 and 3; *i. e.*, read the combinations as we read words. We do not speak the letters in the word cat, but speak the word at once.

We should be thus familiar with the following most difficult combinations:

2	2	3	2	3	4	3	4	9	9	9
3	5	4	7	5	5	7	6	8	7	8
—	—	—	—	—	—	—	—	—	—	—
9	9	9	8	8	8	8	8	7	7	7
5	4	3	7	6	5	4	3	6	5	4
—	—	—	—	—	—	—	—	—	—	—

19. In adding mentally numbers of two places, add the tens' figure of one number to the tens of the other, and then the unit of the one number to this sum.

Add 36
48. Process: 48 and 30 are 78, 78 and 6 are 84.
—

20. The sign of addition is + and is read plus. 5 + 4 is read 5 plus 4. The addition of 6 and 8 is indicated, 6 + 8.

21. The sign of equality is = and is read equal. 5 + 4 = 9 is read 5 plus 4 equals 9, or 5 and 4 are 9. The sum of 5 and 4 is written 5 + 4 = 9.

22. Add 5289, 89, 9468, 6.

```
 5289
   89
 9468
    6
─────
14852
```

Write the numbers in a vertical column with units of like orders in the same column. The sum of the units' column is 32. Write the 2 as the unit figure of the answer, and add or carry the 3 to the next column. Proceed likewise with the next. The sum of the third column is 8. It is less than 10, so write it as the third figure of the answer. The sum of the last column is 14 and is written as the last two figures of the answer.

SUBTRACTION.

23. **Subtraction** is the process of finding the difference between two numbers.

24. The minuend is the larger number. The subtrahend is the smaller, and is taken from the larger.

25. The difference between the two numbers is called the remainder or difference.

26. The sign is —, and is read minus or less.

27. The process in subtraction should be to find how much must be added to one number to make it equal to another.

28. All combinations in subtraction can be readily developed from those of addition. The difference between 9 and 4 may be expressed 9 — 4 or $\begin{array}{r}9\\ -\underline{4}\end{array}$. The latter is more practical.

Subtract 9 from 17. We know from addition that 9 and 8 are 17. 8 is the answer.

29. Write answers to the following, using the above method:

$\begin{array}{rrr}14 & 11 & 9\\ \underline{6} & \underline{5} & \underline{4}\end{array}$ Daily practice with similar work.

30. To subtract a large number from another large number. Observe that whenever a figure in the minuend is smaller than the corresponding figure in the subtrahend, add ten to the figure in the minuend and one to the next figure of the subtrahend. The work will then be addition throughout.

$\begin{array}{r}8397\\ \underline{2648}\\ 5749\end{array}$

Process.—Since we cannot take 8 from 7, call the 7 ten more, or 17. Then 8 and 9 are 17; 9 is the first figure of the answer. Call the 4 five. Then 5 and 4 are 9; 4 is the second figure of the answer. Cannot take 6 from 3, so call the 3 ten more, or 13. Then 6 and 7 are 13; 7 is the third figure of the answer. Call the 2 three. Then 3 and 5 are 8; 5 is the last figure of the answer.

31. Check the work by adding the subtrahend and difference. The result should be like the minuend.

32. How to make change.

Example.—A boy sells a top for 18 cents and receives a 50-cent piece. He should lay out 2 cents, which makes 20 cents; then 5 cents, which makes 25 cents; then 25 cents more, which makes the 50 cents. The process is addition. All the boy wishes to know is that he has received 18 cents.

MULTIPLICATION.

33. Abstract numbers do not refer to objects. For example, 2, 4, 6.

34. Concrete numbers refer to objects. Example: 3 books.

35. Multiplication is the process of taking or adding one number as many times as there are units in another. It is a short form of addition. Example: $3 + 3 + 3 = 9$. This is expressed, $3 \times 3 = 9$.

36. The multiplicand is the number multiplied or added.

37. The multiplier is the number by which we multiply, or it denotes the number of times the multiplicand is to be taken or added.

38. The product is the result of multiplying.

39. The multiplier must be abstract. The multiplicand and product are like numbers.

40. A multiple is a product of two abstract numbers. Example, 21 is a multiple of 7 and 3.

41. Factors are numbers which, multiplied together, will produce another number. Example, 6 and 5 are the factors of 30.

A prime factor is one that is not divisible by any number except itself or one. Example, 1, 2, 3, 5, 7, etc.

42. Sign of multiplication is × and is read times. Example: 5×4 is read 5 times 4. But if the multiplier follows the ×, it is read multiplied by.

43. MULTIPLICATION TABLE.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

Explanation.—The numbers in the left-hand column may be regarded as the multipliers, and the numbers across the top as the multiplicands. The products will be found in the *horizontal columns* opposite the multipliers.

Thus, 2 ones are 2; 2 twos are 4; 2 threes are 6; 2 fours are 8, etc.

The order may be changed so that the numbers in the upper horizontal line may be regarded as the multipliers and the numbers on the left as the multiplicands. The products will then be found in columns *under* the multiplier.

44. To count by any number.

Example.—3, 6, 9, 12, etc., is counting by 3's; 4, 8, 12, 16, etc., is counting by 4's.

In counting by tens the product will be the tens corresponding to the multiplier.

Example.—$4 \times 10 = 40$. Six 10's equal 60, etc.

In counting by nines, each following product will be in the corresponding place less one of the tens next higher.

Example.—9, 18, 27, 36, 45, etc.

Any product of 9 equals the 10's corresponding to the multiplier less the multiplier.

Example.—$6 \times 9 = 60 - 6 = 54$, etc.

45. To multiply when the multiplicand contains two or more figures and the multiplier contains one.

Any table of multiplication may be made by adding to each product a number equal to the table being made.

Example.—To make the table of 7's.

$1 \times 7 = 7$,
$2 \times 7 = 14$,
$3 \times 7 = 21$, and so on adding 7 each time.

EXAMPLE.—246 by 9.

PROCESS.—9 × 6 = 54. Write the 4 for first figure of the answer and reserve the 5. 9 × 4 are 36; add the 5, and we have 41. Write the 1 for second figure of the answer and reserve the 4. 9 × 2 are 18; add the 4 and we have 22, which being the last product, is written for the last two figures of the answer.

```
 246
   9
----
2214
```

46. To multiply when the multiplicand and the multiplier each contain two or more figures.

EXAMPLE.—3463 by 245.

PROCESS.—Find product of 3463 by 5, as in preceding case; then of 4, and finally of 2. Write the first figure of each product directly under the figure of the multiplier used; *e. g.*, the product of 3463 by 4 is 13852; 2, the first figure is written under the 4 in the multiplier. So 6, the first figure of the next product, is written under the 2 of the multiplier. Add the several products.

```
  3463
   245
 -----
 17315
13852
6926
------
848435
```

47. The product by any zero may be omitted.

EXAMPLE.—237 by 104. Should be written

```
  237          237
  104          104
 ----         ----
  948          948
 000         237
237          -----
-----        24648
24648
```

48. To multiply when there are zeros on right of multiplier or multiplicand, or both.

EXAMPLE.—225 by 150.

PROCESS.—Multiply by 15 and then annex one 0 to the product.

```
  225
  150
 ----
 1125
 225
-----
33750
```

Multiply 6400 by 370.

PROCESS.—Multiply 64 by 37 and annex three zeros.

```
   6400
    370
  -----
  448
 192
-------
2368000
```

49. When there are zeros on right of multiplier, multiplicand, or both, write the multiplier so that the first significant figure will come under the first one of the multiplicand. Disregard the zeros in multiplying and annex as many zeros to the product as there are on the right of both multiplier and multiplicand.

DIVISION.

50. In multiplication two factors are given to find the product. In division the product and one factor are given to find the other.

51. Since 5 × 4 = 20, we know that there are five 4's in 20 or four 5's.

52. Division is the process of finding one of two factors when the product and one factor are given. 24 is the product and 6 is one factor; 4 is the other factor, since there are four 6's in 24.

53. The dividend is the product and is the number to be divided.

54. The divisor is the given factor and the number by which we divide.

55. The quotient is the required factor and is the one obtained by dividing.

56. The sign of division is ÷ and is read divided by. 8 ÷ 4 = 2 is read 8 divided by 4 equals 2.; 8 divided by 4 is also written $\frac{8}{4}$.

57. A multiple of a number is the product obtained by taking the number an integral number of times. 21 is a multiple of 7, three 7's = 21. Multiples of 3 are 9, 15, 21, etc.

58. How to find the quotient. Examples: The quotient of 42 ÷ 6 is found by applying the 6th line of multiplication, 7 × 6 = 42. 7 is the quotient. 72 ÷ 8, apply the 8th line of multiplication. 9 × 8 = 72. 9 is the quotient.

59. When the divisor is less than 12, the process of dividing is called short division.

60. Divide 7419 by 3. Arrange

```
  2473
 -----
3)7419
```

ILLUSTRATION.—Take the multiple of the divisor nearest to 7, the number to be divided. 3 × 2 = 6. Write the 2 over the 7. 6 + 1 = 7. Conceive of the 1 being placed before the 4, and mentally we have 14. 4 × 3 = 12. Write the 4 over the 4 in the dividend. 12 + 2 = 14. Conceive of the 2 being placed before the 1 of the dividend, and we have mentally 21. 7 × 3 = 21. Write the 7 over the 1 of the dividend. There is nothing to carry over to the 9. 3 × 3 = 9. Write the 3 over the 9. The quotient is 2473.

61. Divide 17232 by 4. Arrange

```
   4308
  -----
4)17232
```

ILLUSTRATION.—In this case 4 will not divide the first figure of the dividend. So take the first two, and we have 17. 4 × 4 = 16. Write the 4 over the last figure used of the dividend. 16 + 1 = 17. Conceive of the 1 placed before the 2, and we have 12. 3 × 4 = 12. Write the 3 over the 2. In this case there is nothing to carry over. 4 will not divide 3, the next unused figure of the dividend, so write 0 over the 3 and mentally place the 3 with the following figure, 2, and we have 32. 8 × 4 = 32. Write the 8 over the 2.

62. When the divisor is more than one figure or exceeds 12, the process is called long division.

EXAMPLE.—Divide 41964 by 78.

ILLUSTRATION.—78 will not divide 4, neither will it divide 41, but it will divide 419. 419 is a trial dividend. Drop one figure from the right of the divisor and one from the right of the trial dividend, and we have 41 to be divided by 7, a trial divisor. Then, as in short division, 5 × 7 = 35. Write 5 over the 9 of the trial dividend, the last figure used. Multiply the whole of the divisor by the quotient figure just found. 78 × 5 = 390. Subtract this from the part of the dividend just used, and we have 29. Bring down the 6 of the dividend, the next figure of the dividend not used, and we have 296. Proceed as before. Drop one figure of the divisor and one of the trial dividend, and we have 29 to be divided by 7. 3 × 7 = 21. Write the 3 over the 6 just used of the dividend. Multiply 78 × 3 = 234. Subtract 234 from the last trial dividend, 296, and we have 62. Bring 4 down from the dividend, and we have 624 for a trial dividend, with which proceed as before.

```
      538
   ------
78)41964
   390
   ----
    296
    234
    ---
     624
     624
     ---
```

63. **Check.**—The product of the quotient by the divisor plus the remainder, if any, equals the dividend.

64. Divide 124186 by 62.

```
     2003
   ------
62)124186
   124
   ------
      186
      186
      ---
```

ILLUSTRATION.—Find the first figure as above. Observe there is no remainder. Bring down one figure of the dividend. It is less than the divisor, so write 0 over the figure just considered. Bring down the next figure, and we have 18, a number less than the divisor; so write a 0 over the 8 of the dividend. Bring down the next figure, and we have 186. 3 × 6 = 18. 3 is the last figure of the quotient.

65. Usually there is a remainder.

EXAMPLE.—Divide 4246 by 27.

```
   157 7/27
   ----
27)4246
   27
   ----
   154
   135
   ----
    196
    189
    ---
      7
```

ILLUSTRATION.—Sometimes, as in this case, when the second figure of the divisor is large, it is more difficult to divide. It would seem that the first figure of the quotient would be 2, but on trial we should find that 27 × 2 would be larger than our trial dividend, 42. So we must call the quotient figure 1. Proceed as above in getting the 154 for trial dividend. It would now seem that the quotient figure might be 7, but on trial it would be found that 27 × 7 = 189. We will try 4. On trial we find 27 × 4 = 108. Subtract this from our trial dividend, 154, and we have 154 — 108 = 47. This is larger than our divisor, hence 4 is too small. We find 5 to be the figure sought. Continue the work, observing that there will be a final remainder of 7. This may be written at the right of the quotient over the divisor, in this form: $\frac{7}{27}$

In checking, where there is a remainder, proceed as in other cases, but finally add the remainder:

157 × 27 = 4239 + 7 = 4246

66. Observe that the product of the divisor by the last quotient figure cannot be larger than the trial dividend.

Observe that the remainder, obtained by subtracting the product of the divisor by the last figure of the quotient, from the trial dividend cannot be larger than the divisor.

FRACTIONS.

67. **Division** is sometimes indicated thus, $\frac{28}{7}$, which is the same as 28 ÷ 7, and is equal to 4. $\frac{24}{8} = 3$. Observe that the dividend is above the line, the divisor below, and the quotient at the right.

68. **Division** thus expressed is called a fraction. The dividend is called the numerator, the divisor the denominator, and the quotient the value of the fraction.

69. **Unit.**— Any one thing is called a unit.

70. **Fractions.**— One or more of the equal parts of a unit is called a fraction.

71. When anything is divided into 3 equal parts, one of these is called one-third and is written $\frac{1}{3}$; 2 of the parts are called two-thirds and is written $\frac{2}{3}$, etc.

When anything is divided into four equal parts, one of them is called one-fourth and is written $\frac{1}{4}$; 2 of them are called two-fourths and is written $\frac{2}{4}$, etc.

72. The **denominator** shows into how many parts the unit is divided and is written below the line.

73. The **numerator** shows how many parts are taken and is written above the line.

74. **Common Fractions.**—When fractions are expressed by a numerator and denominator, they are called common fractions.

75. **Proper Fractions.**—When the numerator is less than the denominator, the fraction is called a proper fraction, as $\frac{3}{4}$.

76. **Improper Fractions.**—When the numerator is equal to or greater than the denominator, the fraction is called an improper fraction, as $\frac{12}{4}$.

77. The **Proper Fraction** is an impossible case of division. Example: $\frac{3}{4}$, 3 ÷ 4.

78. The **Improper Fraction** is a possible case of division. Example: $\frac{12}{3}$, 12 ÷ 3 = 4.

79. **Mixed Number** is a whole number and a fraction.

80. A **Mixed Number** is obtained by finding the value of an improper fraction. For example, $\frac{13}{5}$, 13 ÷ 5 = 2 and a remainder of 3. Since the 3 has not been divided it must be indicated as an impossible case of division, hence a proper fraction, $\frac{3}{5}$; $\frac{13}{5} = 2\frac{3}{5}$, a mixed number.

81. To reduce an improper fraction to a mixed number.

Find the quotient as in division, writing the remainder over the denominator and annexing it to the quotient.

82. To reduce a mixed number to an improper fraction.

In the mixed number $2\frac{3}{5}$, 2 is the quotient, 5 the divisor and 3 the remainder, given to find the dividend. (Article 63.) Multiply the whole number by the denominator, add the numerator and write the result over the denominator.

83. **Cancellation.**—When common factors are struck out of both dividend and divisor, or both numerator and denominator, the process is said to be cancellation. For example, $\frac{24}{12} = 2$, $\frac{24}{12}$ may be written $\frac{8 \times 3}{4 \times 3}$ Strike out the common factors 3 and 4 and we have $\frac{{}^{2}\cancel{8} \times \cancel{3}^{1}}{{}^{1}\cancel{4} \times \cancel{3}^{1}}$, or $\frac{2 \times 1}{1 \times 1} = \frac{2}{1} = 2$. We may divide the numerator 24 and the denominator 12 by 12, and we have $\frac{2}{1} = 2$.

84. Observe, it does not change the value of the fraction to cancel common factors, nor does it change the quotient to divide both the dividend and divisor, or numerator and denominator, by the same number.

85. To multiply a fraction by a whole number.

To multiply $\frac{3}{4}$ by 2 is as simple as multiplying $\frac{3}{\text{caps}}$ by 2. Both cases would be, if indicated, $\frac{3 \times 2}{\text{caps}}$, or $\frac{6}{\text{caps}}$, and $\frac{3 \times 2}{4}$, or $\frac{6}{4}$.

Write the whole number as a factor of the numerator; cancel and change the result, if it is an improper fraction, to a mixed number. For example, $\frac{4}{9} \times 3 = \frac{4 \times \cancel{3}^{1}}{{}^{3}\cancel{9}} = \frac{4}{3} = 1\frac{1}{3}$.

86. Dividing the numerator or multiplying the denominator divides the quotient. To illustrate: $\frac{12}{3} = 4$; the quotient $4 \div 2 = 2$.

In $\frac{12}{3}$, the numerator $12 \div 2 = 6$, $\frac{6}{3} = 2$.

In $\frac{12}{3}$, the denominator $3 \times 2 = 6$, $\frac{12}{6} = 2$.

87. To divide a fraction by a whole number.

Write the whole number as a factor of the denominator, cancel and change to a mixed number. $\frac{6}{5} \div 4 = \frac{{}^{3}\cancel{6}}{5 \times \cancel{4}^{2}} = \frac{3}{10}$.

88. To multiply a fraction by a fraction.

Regard the numerators as factors of the numerator and the denominators as factors of the denominator, cancel and change to a mixed number. Example: $\frac{\cancel{3}}{\cancel{4}} \times \frac{1}{\cancel{2}} \times \frac{\cancel{8}}{\cancel{9}^{3}} = \frac{1}{3}$.

89. To divide a fraction by a fraction.

Invert the divisor and proceed as in multiplication.

Example: $\frac{3}{4} \div \frac{9}{16}$ Invert the divisor and cancel. $\frac{\cancel{3}}{\cancel{4}} \times \frac{\cancel{16}^{4}}{\cancel{9}^{3}} = \frac{4}{3} = 1\frac{1}{3}$.

90. To divide a whole number by a fraction.

Invert the fraction. Write the whole number and the numerator as factors over the denominator. Cancel and change to a mixed number. For example, $4 \div \frac{12}{5}$, invert and cancel: $\frac{\cancel{4} \times 5}{\cancel{12}^{3}} = \frac{5}{3} = 1\frac{2}{3}$.

91. To multiply or divide when there are mixed numbers.

In case mixed numbers occur in either or both dividend and divisor, change them to improper fractions and proceed by foregoing rules.

92. To reduce a fraction to its lowest terms.

Cancel the common factors of the numerator and denominator.

93. To add fractions having like denominators.

Add the numerators, write the sum over the common denominator and change to its lowest terms. Example, $\frac{2+1+5}{6+6+6}$, $2+1+5 = \frac{8}{6} = 1\frac{1}{3}$.

94. To change a fraction to one having a larger denominator.

Divide the required denominator by the given denominator, and multiply both terms of the fraction by this quotient. Example: Change $\frac{3}{4}$ to a fraction having 12 for a denominator. $12 \div 4 = 3$. Multiplying the numerator and denominator by 3 we have $\frac{9}{12}$.

95. To add fractions not having a common denominator. For example, $\frac{3}{4} + \frac{5}{12} + \frac{2}{3}$. It is evident that these fractions can all be changed to fractions having 12 for a denominator. They will be (Article 94) $\frac{9}{12} + \frac{5}{12} + \frac{8}{12} = \frac{22}{12} = 1\frac{10}{12}$, or $1\frac{5}{6}$.

Change the fractions to a common denominator. Then add as in Article 93.

96. To find the least common multiple or dividend of numbers. Example: Find least common multiple of 8, 4, 12, 32, 5. Arange the numbers on a horizontal line:

$$\begin{array}{r} 2\,)\,\underline{\cancel{8},\ \cancel{4},\ \cancel{12},\ \cancel{32},\ 5} \\ 2\,)\,\underline{\cancel{6},\ \cancel{16},\ 5} \\ 3,\ 8,\ 5 \end{array}$$

Since 4 is a divisor of 12, and 8 a divisor of 32, we strike them out and have 12, 32 and 5 left. Divide by any prime factor that will divide two or more of these numbers. 2 will divide 12 and 32, so write 2 as a divisor. Strike out 12 and 16 and bring down their quotients, also the undivided number 5. Divide the 6, 16, 5 by 2. We have for quotients 3, 8; bring down the undivided 5, and we have 3, 8 and 5. No number will divide more than one of these. The product of the divisors, quotients and undivided numbers is the common multiple, $2 \times 2 \times 3 \times 8 \times 5 = 480$.

RULE.—Arrange the numbers in a horizontal line. Strike out all numbers that are divisors of any one of the given numbers. Divide the remaining numbers by any prime number that will divide more than one. Bring down the quotients and undivided numbers. Divide by another prime number. Bring down the quotients and undivided numbers. Thus continue until no prime number greater than 1 will divide more than one number. The product of the several divisors, the final quotients and the undivided numbers is the least common multiple.

To add unlike fractions having large denominators. Find the least common multiple of the denominators for a common denominator. Change the fractions to equivalent fractions having this denominator (Article 94) and proceed as in Article 93.

97. To add a mixed number and a whole number.

Add the whole numbers and write it with the fraction. For example, $4 + 5\frac{2}{3}$. $5 + 4 = 9$. $9 + \frac{2}{3} = 9\frac{2}{3}$.

98. To add a mixed number and a fraction.

Add the fractions and write the sum with the whole number. If the sum of the fractions is a mixed number, proceed as above. For example, $4\frac{3}{4} + \frac{3}{5}$, $\frac{3}{4} + \frac{3}{5}$, $= \frac{15}{20} + \frac{12}{20} = \frac{27}{20}$, or $1\frac{7}{20}$; $4 + 1\frac{7}{20} = 5\frac{7}{20}$.

99. **Complex Fractions.**

When a fraction has a fraction or a mixed number for its numerator, denominator, or both, it is complex. For example, $\frac{\frac{2}{3}}{\frac{3}{4}}$, $\frac{3\frac{2}{3}}{4}$.

There is nothing new or difficult about these fractions, if we will remember that the numerator is the dividend and the denominator is the divisor. When written as cases of division, they become $\frac{2}{3} \div \frac{3}{4}$ and $3\frac{2}{3} \div \frac{3}{4}$, and have already been explained in foregoing articles.

100. Compound Fractions.

A fraction of a fraction is a compound fraction, and is written thus: $\frac{2}{3}$ of $\frac{3}{4}$. It is simply a case in multiplication of fractions, and may be written $\frac{2}{3} \times \frac{3}{4}$.

101. Interpretation of Fractional Expressions.

EXPLANATION.—$\frac{7}{9}$ may represent that 7 of 9 equal parts have been taken. It may express $\frac{1}{9}$ of 7, or it may represent 7 ÷ 9. It is read seven-ninths.

DECIMAL FRACTIONS.

102. When a fraction denotes tenths, hundredths, thousandths, etc., it is called a decimal fraction, or simply a decimal.

EXAMPLE.—$\frac{5}{10}$, $\frac{25}{100}$, $\frac{125}{1000}$.

103. Decimals are written without the denominator. This omission is indicated by a point, called the decimal point, placed before the decimal.

EXAMPLE.—$\frac{5}{10}$ is written .5, $\frac{25}{100}$ is written .25, $\frac{4}{100}$ is written .04

104. **Orders.**—Since the decimal is a fraction, there will be no order of units. The order or places will commence with tenths, and will be the same as those for whole numbers; except that they will extend in the opposite direction, and have the termination of ths. For example, tenths, hundredths, thousandths, millionths, etc.

105. **Decimal Fractions** are written and read very much the same as whole numbers.

106. To write decimals.

Observe that the tenths has one place, hundredths two places, thousandths three places, etc. Twenty-five hundredths is a concrete number, the same as twenty-five books. They may be written 25 hundredths and 25 books. In both cases the 25 is the abstract part and the hundredths and the books are the kinds of units enumerated. In all cases of decimal numbers, the units used are parts of a whole one. This is indicated by the decimal point. The units used are determined by the position they occupy relative to the decimal point. For example, tenths occupy the first place to the right, hundredths the second, thousandths the third, etc.

The unit figure of the abstract number must come in the place or order of the decimal unit named. In the decimal, twenty-five thousandths, the unit figure of the abstract 25 must come in the order of thousandths, the third place to the right of the decimal point. Vacant places or orders must be filled by 0's. For example, Twenty-five thousandths is written .025.

107. To read decimals.

Read the number to the right of the decimal point as if it were a concrete number, giving the name of the last order. Read .235. Determine the name of the order of the decimal in which the unit figure of the abstract number .235 is found. This is thousandths. Now read the number as concrete, giving the name of thousandths, and we have 235 thousandths. Written in words, this is two hundred thirty-five thousandths.

Read .0034. The name of the order in which the unit figure is found is ten thousandths. We therefore have 34 ten-thousandths. Written in words, it is thirty-four ten-thousandths.

108. Mixed Decimals.

A whole number and a decimal is called a mixed decimal. For example, 5.06 is a mixed decimal. It has the number 5 and the decimal .06, and is read five and six-hundredths. Observe that, in reading, "and" is always inserted between the integral and decimal parts.

109. In writing decimals, when there is no integral or whole number, place a 0 before the decimal point, thus, 0.5, which is read 5 tenths.

110. To express a decimal in the form of a common fraction.

Write the decimal, as an abstract number, over a line for the numerator, with 1 and as many zeros annexed as the decimal had places for the denominator. Reduce to lowest terms. For example, change .15 to a common fraction,

$$.15 = \frac{15}{100} = \frac{3}{20}.$$

111. Zeros may be annexed to decimals without changing the value. For example, .5 = .50.

ILLUSTRATION: $.5 = \frac{5}{10}$, $.50 = \frac{50}{100}$, $\frac{5}{10} = \frac{1}{2}$, $\frac{50}{100} = \frac{1}{2}$.

112. Addition and Subtraction.

Write the numbers so that the decimal points shall be directly over each other. Proceed as in whole numbers. Write the decimal point of the answer directly under that of the numbers above.

113. To multiply a decimal by a decimal or a whole number.

Multiply as in whole numbers, and point off as many places in the product as there are decimal places in both the multiplier and multiplicand.

EXAMPLE.—2.5 × 3.4.

$$\begin{array}{r} 2.5 \\ 3.4 \\ \hline 100 \\ 75 \\ \hline 8.50 \end{array}$$

114. To divide.

If the divisor has no decimal places, divide as in whole numbers, placing the decimal point in the quotient directly over that of the dividend.

If there is a remainder, the quotient may be carried to any number of places by annexing 0's to the dividend. (Article 111.)

If the divisor has decimal places, conceive the decimal point of the dividend removed to the right as many places as there are decimal places in the divisor. Mark this place with a caret. If there should not be decimal places enough in the dividend, annex 0's. (Article 111.) Regard the divisor as a whole number and divide as above.

EXAMPLE.—3.4 ÷ .23.

ILLUSTRATION.—The decimal places in the divisor exceed those of the dividend. So annex a 0 to the dividend, and we have 3.40. Conceive the decimal point of the dividend to be removed as many places to the right as there are places in the divisor and mark the place with a caret, and we have .23)3.40 0. Dividing, we have a remainder, and so annex 0's to the dividend.

$$\begin{array}{r} 14.78 \\ .23)3.40\ 00 \\ 2\ 3 \\ \hline 110 \\ 92 \\ \hline 180 \\ 161 \\ \hline 190 \\ 184 \\ \hline \end{array}$$

115. To multiply by 10, 100, etc.

2.5 × 10.

$$\begin{array}{r} 2.5 \\ 10 \\ \hline 25.0 \end{array}$$

Observe that the decimal point in the product has been moved one place to the right, and we have 25. To multiply by 10, remove the decimal point one place to the right; to multiply by 100, remove point two places; by 1000, three places, etc.

116. To divide by 10, 100, etc.

4.5 ÷ 10.

$$\begin{array}{r} 0.45 \\ \hline 10)4.50 \end{array}$$

We have 0.45. The decimal point has been removed one place to the left. To divide by 100, remove point two places to the left, etc.

117. To change common fractions to a decimal, annex zeros to the numerator and change to mixed decimal. (Article 111.) For example, change $\frac{3}{4}$ to a decimal $\frac{3.00}{4} = 0.75.$ $\frac{3}{4} = .75.$

UNITED STATES MONEY.

117a. United States money is the currency used in the United States.

TABLE OF DENOMINATION.—			
10 mills	are	1	cent.
10 cents	"	1	dime.
10 dimes	"	1	dollar.
10 dollars	"	1	eagle.

118. The sign of dollars is $, which is simply U. S. with the S written over the U, and is written before the number of dollars. Example: $5.

119. The sign of cents is ¢, and is written after the number of cents. Example: 8¢.

120. 100¢ = $1. So 1¢. $= \frac{1}{100}$ of a dollar, and may be written $0.01. Observe that cents must have two places.

$5.35 is five dollars and 35 hundredths of a dollar, but it is always read five dollars thirty-five cents.

121. In writing dollars, if there are no cents, the places of cents are supplied with 0's. Example: Five dollars is written $5.00, or $5.

122. **Caution.**—Do not mistake .25 for $.25, and read it 25¢. It is merely twenty-five hundredths.

25¢., written as hundredths of dollars, must have the sign of dollars prefixed, as $0.25.

123. One mill is .1 of a cent and .001 of a dollar. It is usually written with dollars, thus: $5.001, and is read five dollars and one mill. $5.234 is read five dollars, twenty-three cents and four mills.

124. United States money is added, subtracted, multiplied and divided the same as decimals.

PERCENTAGE.

125. Percentage is a process of computing in hundredths.

It is nothing new, merely a practical application of decimal fractions to business transactions. It deals with hundredths, employs a new symbol and new terms.

Studied from a comparative standpoint, it is very comprehensive.

126. The sign % stands for hundredths and is read per cent. 8% is read eight per cent., and is the same as .08, $\frac{8}{100}$; 25% is read twenty-five per cent. and is the same as .25, $\frac{25}{100}$, or $\frac{1}{4}$.

127. Rate per cent., or rate.

Rate is a relative term and always denotes so many hundredths of something expressed or understood.

The rate is frequently most conveniently expressed by a common fraction. For example, 25% = .25 or $\frac{1}{4}$. 20% = .20 or $\frac{1}{5}$, so a common fraction may be expressed in per cent. Example: $\frac{1}{2} = 50\%$, $\frac{1}{3} = 33\frac{1}{3}\%$.

100% = the whole or 1. 125% = 1.25.

The rate corresponds to the multiplier in multiplication.

128. **Base.**—The base is that to which the per cent. relates. It is the thing on which the hundredths are computed and corresponds to the multiplicand in multiplication.

129. **Percentage.**—The result of taking a certain per cent. of the base is called the percentage and corresponds to the product in multiplication.

130. To find the percentage.

Multiply the base by the rate expressed decimally. Example: 30% of 85. 30% = .30, 85 × .30 = 25.5.

131. To find the base, the rate and percentage given.

The base is the multiplicand, the percentage is the product and the rate is the multiplier. We have the product and one factor given to find the other. (Article 52.)

Divide the percentage by the rate expresed decimally.

EXAMPLE.—28 is 7% of what number? 28 ÷ .07 = 400.

132. Percentage and base given, to find rate.

We have the product and multiplicand given to find the multiplier. (Article 52.)

Divide the percentage by the base, extending the division to hundredths, and express the quotient in rate per cent.

EXAMPLE.—36 is what per cent. of 90? 40%

36 ÷ 90. 90)36.00
36 0

133. When a given number is a given per cent. more than another.

Add the given per cent. to 100% and divide the given number by the sum expressed decimally.

EXAMPLE.—224 is 12% more than what number?

EXPLANATION.—224 is equal the number + 12% of the number. The number = 100, hence 224 = 112% of the number.

We have the rate and percentage given to find the base. (Article 131.)

134. When the given number is a given per cent. less than the required number.

Subtract the given per cent. from 100% and divide the given number by the remainder expressed decimally.

EXAMPLE.—240 is 20% less than what number?

EXPLANATION.—The required number is 100%. 240 is 20% less, hence 240 is 80% of the required number.

We have the rate and percentage given to find the base. (Article 131.)

135. **Discount.**—Discount is an application of percentage to business. A deduction made on a price or an amount is called a discount.

Discounts are usually reckoned as so many per cent., and this per cent. is called the rate of discount.

136. To find a price or net amount after a discount has been made.

EXAMPLE.—Discount $14. 20%. Deduct 20% from 100%. 100% — 20% = 80%. There will be 80% of $14 left. (Article 130.)

137. To find the discount. Proceed as in Article 130 and call the result discount.

138. **Percents Off.**—When goods are listed and discount is to be made, they are marked a certain per cent. off.

EXAMPLE.—Goods marked $5.00 and discounted 10% are marked $5.00 — 10%.

Sometimes goods that are already discounted are discounted the second or third time. If the above goods were to be again discounted 5%, they would be marked $5.00 — 10% — 5%. This means that $5.00 is discounted 10% and then this remainder discounted 5%.

139. **Bill.**—A bill is a statement of goods sold.

140. **Debtor and Creditor.**—When one man owes another he is called the debtor (Dr.).

The man to whom he owes is called the creditor (Cr.).

141. **Debit and Credit.**—The amount owed on a bill is called the debit part of the bill. The amount paid is called the credit part.

Bills.—Bills usually begin as follows:

Boston, Mass., Dec. 8, 1904.
Mr. A. B. Small to Smith & Hall, Dr.
. . . .
. . . .
To 5 boxes of soap @ $3.00 $15.00
Rec'd payment,
Smith & Hall.

142. **Receipt.**—A bill is receipted by the party, to whom it is due, signing after the words "Rec'd payment."

PROFIT AND LOSS.

143. **Profit and Loss.**—Profit and loss is the application of percentage to buying and selling goods.

144. The per cent. of profit or loss is always reckoned on the cost of the goods.

EXAMPLE.—Goods bought at $40 are sold at a profit of 20%. What is the selling price? 20% of $40. $8 profit. $40 + $8 = $48 selling price.

145. Goods bought at $60 and sold at $40. What was the loss per cent.? $60 — $40 = $20. $20 is what per cent. of $60? (Article 132.)

146. **Commission.**—The pay received for buying or selling goods is often reckoned at a certain per cent. of the price and is called commission.

EXAMPLE.—If a man buys $500 worth of goods at a commission of 3%, he would receive 3% of $500, or $15.

INSURANCE.

147. **Insurance** is a promise of indemnity for loss by fire or other specified causes.

148. **The Policy** is the written agreement. The face of the policy is the sum specified therein to be paid in case of loss.

149. **The Premium** is the sum paid for the insurance. It is a percentage on the face of the policy.

EXAMPLE.—A house is insured for $3200 @ 2%. The premium is $64.

TAXES.

150. **Tax** is the name applied to money paid for the support of a town, city, county or State.

151. **Direct Taxes** are levied on the person or on the value of his property.

152. **A Poll Tax** is a tax levied upon a person. **Property Tax** is one levied on property.

153. How to find the rate of taxation.

A tax of $18,000 is levied on a town of 1000 polls, assessed at $2 each. The taxable property is assessed at $800,000. What is Mr. Horn's tax, who is assessed for $2400?

SOLUTION.—$18,000 less $2000 for poll tax equal $16,000 amount to be collected. By article 132 we find $16,000 is 2% of $800,000, or $2 on a thousand.

Mr. Horn's tax will be 2% of $2400, or $48 + $2 for poll tax, or $50.

INDIRECT TAX.

154. **Indirect Taxes** are levied upon articles of merchandise. Customs or duties are taxes on im-

ported goods. Excise or Internal Revenue is a tax on domestic goods.

155. **Duties** are of two classes: Specific and Ad Valorem.

Specific Duty is a definite sum levied on each unit by which the article is measured or weighed.

156. **Ad Valorem Duty** is levied as a per cent. on the cost of the article.

157. **Duties** are computed on the sum after making all deductions.

INTEREST.

158. **Interest.**—Money paid for the use of money is called interest. It is reckoned as a certain per cent. of a sum borrowed for one year.

159. **Principal.**—The sum borrowed is called the principal. It corresponds to the base in percentage.

160. **Rate.**—The per cent. of interest is called the rate. If the interest is 6% of the principal, the rate is 6%.

161. Whatever the rate of interest, the time is one year. Illustration: If the rate is 6%, the interest on $100 for one year will be $6; for two years, $12; for six months or half a year, $3.

162. To find the interest at any rate for any number of years.

Multiply the principal by the rate expressed decimally and this product by the number of years or the part of a year.

Example.—Interest on $510.50 at 5% for 3 years. $510.50 × .05 = $25.525 × 3 = $76.575.

163. At 6% the interest on $1 is:

For 1 year	$0.06
For 2 months	0.01
For 1 month	0.005
For 6 days	0.001
For 1 day	0.000⅙

164. To find the interest at 6% for years, months and days.

Multiply 6 cents by the number of years, one-half a cent by the number of months, ⅙ of a mill by the number of days. Find the sum, and multiply this sum by the number of dollars in the principal.

Example.—Find the interest on $320 for 3 years 9 months 20 days. Interest on $1.

3 years,	9 months,	20 days.
$0.18	0.045	0.003⅓

$0.18
0.045
0.003⅓

$0.228⅓ × 320 = $73.07

165. For any other per cent. than 6%.

First find the interest at 6%. Divide this sum by 6 to get 1%, and then multiply by a number equal to the rate required.

Short Methods.—To find the interest at 7%, add ⅙ to the interest at 6%; for 8%, add ⅓; for 9%, add ½; for 5%, subtract ⅙; for 4%, subtract ⅓; for 3%, take one-half of the interest at 6%.

166. **To find the Amount.** Add the principal to the interest.

PARTIAL PAYMENTS.

167. **Partial Payments.**—If a dealer holds a note against one of his customers, and it bears interest, and partial payments are made from time to time, the amount due on the day of settlement is found in the following way:

Add the interest to the principal whenever the payment (or sum of the payments) equals or exceeds the interest.

Then deduct the payment (or payments) and continue as before.

This is the United States rule of partial payments, the legal one in most States. Where other rules are legal, the law should be understood and the problems solved accordingly.

168. **Illustrative Problem.**—A note for $1000, at 5%, is dated January 1, 1905. The following payments are indorsed (written across the back, as is the custom): July 1, 1905, $10; January 1, 1906, $40; July 1, 1906, $20; January 1, 1907, $130. How much is due July 1, 1907?

The interest on July 1, 1905, is $25, and the payment is $10. Hence the payment cannot be deducted. The reason is easily seen, for if we should take $1025 — $10 = $1015 as the new principal, we should be drawing interest on more than the $1000.

First principal	$1000
Interest for 1 year	50
First amount, January 1, 1906	$1050
First and second payments	50
Second principal, January 1, 1906	$1000
Interest for 1 year	50
Second amount, January 1, 1907	$1050
Third and fourth payments	150
Second principal	$900
Interest for 6 months	22.50
Due July 1, 1907	$922.50

169. **Promissory Note.**—A paper signed by a borrower, agreeing to repay money, is called a promissory note.

170. **Face of Note.**—The sum borrowed is called the principal, or, if a note is given, the face of the note.

171. **Amount of Note.**—The sum of the principal (or face) and interest is called the amount.

Notes should state value received, the date, face, rate, person to whom payable, and time of payment:

> 75\frac{50}{100}$ Portland, Me., Dec. 7, 1908.
> Six months after date, for value received, I promise to pay to ......
> James Gilman .... or order,
> Seventy-five and ....$\frac{50}{100}$ Dollars,
> with interest at 5%.
> Eugene Holland.

172. **Demand Note.**—To write a demand note, substitute the words "On demand" for the words "Six months after date."

BANK DISCOUNT.

173. **Bank Discount.**—When a man borrows from a bank he pays the interest in advance. Interest is not mentioned in the note, because it has already been paid.

Interest paid in advance on a note is called discount.

The same word is used for bank and trade or commercial discount. The process is the same as finding the simple interest.

174. **Proceeds.**—The face of a note less the discount is called the proceeds.

175. **Illustrative Problem.**—What is the discount on a $200 note for 6 months at 5%? What are the proceeds?

The discount (interest) for one year is 5% of $200, or $10.

For one-half year it is one-half of $10, or $5, discount. $200 — $5 = $195, proceeds.

176. **Payee of a Note.**—The person named in the note as the one to whom it is payable is called the payee.

177. **Maker of a Note.**—The one who signs the note is called the maker.

178. **Indorsing Notes.**—If the payee wishes to sell the note, he must, when it is payable to himself or order, indorse it.

A note is indorsed by the payee writing his name across the back. The indorser must pay the note, if the maker does not.

If he wishes it payable to the order of Charles Jackson, he writes across the back "Pay to the order of Charles Jackson," and signs his name.

A note payable to James Gilman or bearer may be sold without indorsement. Such notes are not common.

If such a note should be lost, it could be collected by the finder.

179. **A Draft or Bill of Exchange** is a written order directing one person to pay a specified sum of money to another.

180. **A Check** is a draft upon a bank where the maker of a note has money deposited.

181. **A Certified Check** is a check upon which the cashier of a bank has indorsed in red ink the word "Certified," with the date, name of bank and his signature as cashier. The bank is then responsible for its payment.

182. **Days of Grace** are three days allowed in addition to the time stated in the note before the note is legally due. Some States do not allow days of grace. A note may be written with the words "without grace."

183. **Protest** is a notice in writing by a notary public to the indorser that a note has not been paid. If a note is not protested at the end of the day of its maturity, the indorsers are released.

DENOMINATE NUMBERS.

184. **Table of Length.**

TABLE.

12 Inches (in.) = 1 Foot ....ft.
3 Feet = 1 Yard ....yd.
5½ Yards or 16½ ft. = 1 Rod ....rd.
320 Rods = 1 Mile ....mi.
4 Inches = 1 Hand.
6 Feet = 1 Fathom.
120 Fathoms = A Cable Length.

185. **Square Measure.**

TABLE.

144 Square Inches (sq. in.) = 1 Square Foot...sq. ft.
9 Square Feet = 1 Square Yard...sq. yd.
30¼ Square Yards = 1 Square Rod....sq. rd.
160 Square Rods = 1 Acre ....A.
640 Acres = 1 Square Mile...sq. mi.

186. **Cubic Measure.**

TABLE.

1728 Cubic Inches (cu. in.) = 1 Cubic Foot ....cu. ft.
27 Cubic Feet = 1 Cubic Yard ....cu. yd.
128 Cubic Feet = 1 Cord ....C.
8 Cord Feet = 1 Cord.

187. **Liquid Measure** is used in measuring liquids.

TABLE.

4 Gills (gi.) = 1 Pint ....pt.
2 Pints = 1 Quart ....qt.
4 Quarts = 1 Gallon ....gal.
231 Cubic Inches = 1 Gallon.

188. **Dry Measure** is used in measuring grain, roots, fruit, etc.

TABLE.

2 Pints (pt.) = 1 Quart ....qt.
8 Quarts = 1 Peck ....pk.
4 Pecks = 1 Bushel ....bu.
2150.42 Cubic Inches = 1 Bushel.

189. **Avoirdupois Weight** is used in measuring heavy articles.

TABLE.

16 Ounces (oz.) = 1 Pound ....lb.
100 Pounds = 1 Hundred-weight .....cwt.
20 Hundred-weight = 1 Ton ....T.
2240 Pounds = 1 Long Ton.

190. **Troy Weight** is used in measuring gold, silver and jewels.

TABLE.

24 Grains (gr.) = 1 Pennyweight ....dwt.
20 Pennyweights = 1 Ounce ....oz.
12 Ounces = 1 Pound ....lb.

191. **Measures of Time.**—The following are the ordinary divisions of time:

TABLE.

60 Seconds (sec.) = 1 Minute ....min.
60 Minutes = 1 Hour ....hr.
24 Hours = 1 Day ....da.
7 Days = 1 Week ....wk.
30 Days = 1 Month ....mo.
365 Days = 1 Year ....yr.
366 Days = 1 Leap Year ....yr.
100 Years = 1 Century ....cen.

"Thirty days hath September,
April, June and November."

The other months have 31 days, excepting February, which has 28 days for common years and 29 for leap years.

Leap years are those divisible by 4, excepting the centennial year, which must be divisible by 400.

192. **Denominate Numbers.**—Concrete numbers denoting measure and weight are called denominate numbers.

EXAMPLE.—$2. 3 ft. 4 oz.

193. **Compound Numbers.**—Denominate numbers in which two or more units are expressed are called compound numbers.

EXAMPLE.—2 ft. 3 in. 5 lb. 4 oz.

194. **Reduction.**—Changing from one form to another, without changing the value, is called reduction.

EXAMPLE.—2 ft. 3 in. may be changed to 27 in.

195. Reduction to a lower denomination is called reduction descending.

EXAMPLE.—3 ft. reduced to 36 in.

Reduction to a higher denomination is reduction ascending.

EXAMPLE.—32 ounces reduced to pounds.

196. To reduce to a lower denomination.

Multiply the given denomination by the number of units it takes of the lower denomination to make one of the given denomination, and give the result the name of the lower denomination.

EXAMPLE.—Reduce 3 lb. to ounces. 3 × 16 = 48 oz.

197. To change to a higher denomination.

Divide the given denomination by the number of units it takes of the given denomination to make one of the higher. Give the quotient the name of the higher denomination. If there is a remainder, give it the name of the lower denomination.

EXAMPLE.—Reduce 27 in. to feet. 27 ÷ 12 = 2 ft. 3 in.

198. **Reduction Descending.**—Required to reduce 160 rd. to inches.

EXPLANATION.	ACTUAL WORK.
Since 1 rd. = 16½ ft.,	160
160 rd. = 160 × 16½ ft. = 2640 ft.	16½
Since 1 ft. = 12 in.,	80
2640 ft. = 2640 × 12 in. = 31,680 in.	960
	160
While we think of multiplying 16½ ft. by 160, we actually multiply 160 by 16½, because this is shorter, and so for 2640 times 12 in.	2640 No. of ft.
	12
	31680 No. of in.

199. **Reduction Ascending.**—Required to reduce 200 pt. to gallons.

EXPLANATION	ACTUAL WORK.
Since 1 pt. = ½ qt.,	2) 200 No. of pt.
200 pt. = 200 × ½ qt. = 100 qt.	
	4) 100 No. of qt.
Since 1 qt. = ¼ gal.,	
100 qt. = 100 × ¼ gal. = 25 gal.	25 No. of gal.

ADDITION AND SUBTRACTION.

200. **Adding Compound Numbers.**—Required the sum of 3 ft. 9 in., 6 ft. 7 in., 5 ft. 10 in.

Here the sum of the inches is 26 in. = 2 ft. 2 in. The sum of the feet is 14 ft., which, with the 2 ft., equals 16 ft.

ft.	in.
3 ft.	9 in.
6	7
5	10
16 ft.	2 in.

201. **Subtracting Compound Numbers.**—In subtracting 17 ft. 10 in. from 23 ft. 8 in., we have: 8 in. — 10 in., impossible; 1 ft. 8 in., or 20 in. — 10 in. = 10 in.; 23 ft. — 18 ft. = 5 ft.

ft.	in.
23 ft.	8 in.
17	10
5 ft.	10 in.

MULTIPLICATION.

202. **Multiplying Compound Numbers.**—Required to multiply 4 lb. 9 oz. by 6.

We might multiply as with other numbers and obtain 24 lb. 54 oz., and reduce this to 27 lb. 6 oz. But it is easier to say: "6 times 9 oz. = 3 lb. 6 oz.; 6 times 4 lb. = 24 lb., which, added to 3 lb., = 27 lb."

4 lb. 9 oz.
6
27 lb. 6 oz.

DIVISION.

203. **Abstract Divisor.**—Divide 371 ft. 6 in. by 15.

24 ft.
15) 371 ft. 6 in.
30
71
60
11 ft. = 132 in.
138 in.

9 in.
15) 138 in.
135
3

Dividing as usual, 371 ft. ÷ 15 = 24 ft., and 11 ft. remainder. 11 ft. = 11 × 12 in. = 132 in., and 132 in. + 6 in. = 138 in., to be divided. 138 in. ÷ 15 = $9\frac{1}{5}$ in. Therefore the quotient is 24 ft. $9\frac{1}{5}$ in.

204. **Concrete Divisor.**—Divide 22 ft. 9 in. by 3 ft. 3 in.

In such cases reduce dividend and divisor to the same denomination, thus:

22 ft. 9 in. = 273 in.
3 ft. 3 in. = 39 in.
Therefore, 273 in. ÷ 39 in. = 7.

7 in.
39 in.) 273 in.
273

LINES.

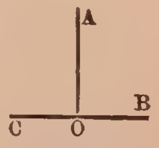
205. **A straight** line is one that does not change its direction.

206. **A curved** line is one that constantly changes its direction.

207. **Parallel** lines are those that are everywhere an equal distance from each other.

208. When two lines come together at a point, the opening is called an angle.

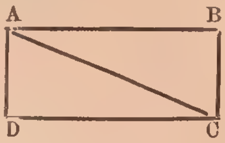
209. When two lines meet so as to form two equal angles, these angles are called right angles. Example: AOB is a right angle.



210. **Perpendicular.**—When one line meets another, forming a right angle, it is called a perpendicular.

FIGURES.

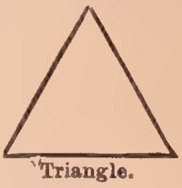
211. **Polygon.**—A polygon is a figure bounded by straight lines.



212. **Rectangle.**—A figure bounded by straight lines and having right angles is a rectangle. Example: Fig. ABCD is a rectangle.

213. **A Diagonal.**—A line joining two opposite angles, as AC, is a diagonal.

214. **Perimeter** is the distance around a figure.


Triangle.

215. **A Triangle.**—A figure bounded by three straight lines is a triangle.

216. **A Right Angle Triangle** is a triangle having a right angle.

217. The **Hypothenuse** is the side opposite the right angle.

218. **Base.**—The side upon which a figure is supposed to stand is called the base.

219. The **Altitude** is the perpendicular height.

220. A **Circle** is a figure bounded by a uniform curve, every point of which is equal distance from a point within, called the center.

221. The **Circumference** is the bounding line.

222. The **Diameter** is a line passing through the center and terminating with the circumference.

223. The **Radius** is half the diameter.

224. A **Surface** is that which has length and breadth without thickness.

225. A **Solid** is that which has length, breadth and thickness.

MEASUREMENTS.

226. To find the area of a rectangle.

Multiply the length by the width.

227. The area divided by one side gives the other side.

228. To find the area of a triangle.

Multiply the base by one-half the altitude.

229. To find the contents of a solid or capacity of a box.

Take the product of the length, width and height.

230. To find the dimensions of a circle.

The circumference = 3$\frac{1}{7}$ times the diameter.
The diameter = $\frac{7}{22}$ of the circumference.
The area = the circumference × ¼ of diameter, or the square of the circumference × $\frac{7}{88}$, or the square of the diameter × $\frac{11}{14}$.

231. To measure wood.

A cord of wood is 8 feet long, 4 feet wide and 4 feet high. Cordwood is always cut 4 feet long and usually piled 4 feet high. 8 cord feet makes a cord. A cord foot is a pile of cordwood 4 feet high and 1 foot long; every 8 feet would make a cord.

Rule.—When the height is 4 feet, divide the length of the pile by 8, and the quotient will be cords.

232. **General Rule.**—Multiply the length, height and width together and divide by 8 × 4 × 4 or 128. Use cancellation.

Example.—How many cords in a pile of wood 24 feet long, 8 feet wide and 12 feet high?

$$\frac{\cancel{24}^3}{\cancel{8}^1} \times \frac{\cancel{8}^2}{\cancel{4}^1} \times \frac{\cancel{12}^3}{\cancel{4}^1} = 18 \text{ cords.}$$

233. To find the price of commodities sold by the ton.

Multiply one-half the price by the weight in pounds and point off three places.

Example.—What is the price of 925 pounds of coal at $7.30 a ton?
$3.65 × 925 = 3376.25; point off three places, $3.37.

Illustration.—Price of 2000 lbs., $7.30. Price of one pound will equal $\frac{\$7.30}{2000}$. Cancel the factor 2, and we have $\frac{\$3\ 65}{1000}$. $3.65 is half the price. Divide both terms by 1000 and we have $\frac{\$.00365}{1}$, or $.00365. Three places have been pointed off. This can be more conveniently done in the product. 925 × .00365 = $3.37 + .

CARPETING ROOMS.

234. Get the width of the carpeting. Determine the number of strips to be used. Multiply the length of the strips in yards, including the waste for matching, by the number of strips.

PAPERING ROOMS.

235. Wall paper is 18 in. wide, and is sold in single rolls 8 yds. long, or in double rolls 16 yds. long.

In estimating the number of double rolls for a room of ordinary height, find the perimeter of the room, deduct the width of the doors and windows, and allow a roll for every seven feet.

From the perimeter of the room subtract the width of the doors and windows, and divide the remainder by seven.

A room is of ordinary height when the distance from the baseboard to the border is not more than 8 feet.

CLAPBOARDS.

236. **Clapboards** are put up in bundles of 25, each 4 feet long, and are laid 3½ inches to the weather. Each clapboard covers 1⅙ sq. ft.

Find the area in sq. ft. of the surface to be clapboarded, make allowance for doors and windows, and divide by 1⅙.

PARTNERSHIP.

237. **Partnership.**—If parties invest equal sums and contribute equally in work, the profits are divided equally. Otherwise partative proportion is employed.

238. **Illustrative Problem:**

A, B and C invest as follows: A, $300; B, $500; C, $700. They make $360. What is the share of each?

Total investment $1500.

A's share will be $\frac{300}{1500}$ or $\frac{1}{5}$ of $360 or $72.
B's share will be $\frac{500}{1500}$ or $\frac{1}{3}$ or $360 or $120.
C's share will be $\frac{700}{1500}$ or $\frac{7}{15}$ of $360 or $168.

Check. $72 + 120 + 168 = 360$.

STOCKS AND BONDS.

239. A company is called a **Corporation** when authorized by law to transact business as one person.

240. **Stock** is the capital of the corporation invested in business. Those owning the stock are stockholders.

241. **Stock** is divided into **Shares**, usually of $50 or $100 each.

242. **Stocks** is a general term applied to bonds, State and national, and to the certificates of stock belonging to corporations.

243. A **Bond** is a written or printed obligation, under seal, securing the payment of a certain sum of money at or before a specified time.

244. An **Assessment** is a sum of money required of the stockholders in proportion to their amounts of stock.

245. A **Dividend** is a sum of money to be paid to the stockholders in proportion to their amounts of stock.

246. Problems involving dividends and assessments give rise to four cases, solved like the four corresponding cases of **Percentage**.

247. The quantities involved are: the stock, the rate and the dividend or assessment.

248. The stock corresponds to the base; the dividend or assessment to the percentage; the stock plus the dividend to the amount, and the stock minus the assessment to the difference.

249. Given the stock and rate, to find the dividend or assessment.

RULE.—Stock × Rate = Dividend or Assessment.

250. Given the stock and dividend or assessment, to find the rate.

RULE.—$\frac{\text{Dividend or Assessment}}{\text{Stock}} = \text{Rate.}$

251. Given the dividend or assessment and the rate, to find the stock.

RULE.—$\frac{\text{Dividend or Assessment}}{\text{Rate}} = \text{Stock.}$

RATIO.

252. The relation of one like number to another, as has been expressed in division and in fractions, is called the **Ratio** of the first to the second.

253. **Writing Ratios.**—The sign of ratio is (:). The ratio of 12 ft. to 3 ft. is expressed, $\frac{12\text{ ft.}}{3\text{ ft.}}$, $\frac{12}{3}$, 12 : 3, or simply 4.

254. The first term is called the **Antecedent** and the second the **Consequent**. The antecedent corresponds to the numerator and the consequent to the denominator.

255. The **Ratio** is always abstract and corresponds to the quotient.

256. **Ratio** employs three terms, Antecedent, Consequent and Ratio, corresponding to the dividend, divisor and quotient. Two terms being given, the third can be found. For example:

What is the number whose ratio to 5 is 3?
$5 \times 3 = 15.$ $15 : 5 = 3.$
To what number has 48 a ration of 6?
$48 \div 8 = 6.$ $48 : 8 = 6.$

SQUARE NUMBERS AND SQUARE ROOTS.

257. **Square Numbers and Square Roots.**—If a square has a side 5 units, it has an area 25 square units. Therefore 25 is called the square of 5, and 5 the square root of 25.

258. **Square Roots of Areas.**—Therefore, considering the abstract numbers, representing the sides and area, the side of a square is the square root of its area.

259. **Writing Squares and Roots.**—The square of 5 is written 5^2; the square root of 25 is written $\sqrt{25}$.

260. **Perfect Squares.**—A number like 9 is a perfect square, but 10 is not a perfect square. We speak, however, of $\sqrt{10} = 3.16+$, because 3.16^2 nearly equals 10.

261. **Square Roots of Perfect Squares.**—Square roots of perfect squares are often found by factoring. For example:

$$\sqrt{1296}=\sqrt{2\times2\times2\times2\times3\times3\times3\times3}$$
$$=\sqrt{(2\times2\times3\times3)\times(2\times2\times3\times3)}$$
$$=\sqrt{36^2}=36.$$

2)1296
2)648
2)324
2)162
3)81
3)27
3)9
3

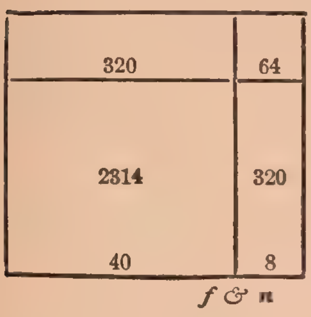
262. **Uses of Square Root.**—To find the side of a square it is, therefore, sometimes necessary to find square roots.

263. For classes that have not taken any simple work with letters, as in algebra, the following simple explanation of terms is sufficient:

LETTERS USED TO REPRESENT NUMBERS.—If we have two letters, like x and y, their product is indicated by xy. If $x = 5$ and $y = 7$, then $xy = 5 \times 7 = 35$, $2xy = 70$, $x^2 = 25$ and $y^2 = 49$.

This is all the work with letters necessary for the understanding of square root. If not already known, a few minutes of drill upon similar work will suffice.

264. Square on the Sum of Two Lines.—If we have two lines, f and n, and construct a square on their sum, we see by this figure that there are two squares and two rectangles, f^2, n^2, and fn, fn. Therefore,



The square of the sum of two numbers equals the square of the first plus twice the product of the first and second, plus the square of the second. That is,

Illustrative Problem.—What is the square of 48?

$$48^2 = (40+8)^2 = 40^2 + 2 \times 40 \times 8 + 8^2$$
$$= 1600 + 640 + 64 = 2304$$

265. How to find a square root. Find $\sqrt{2304}$.

If we let f = the found part of the root at any time, and n = the next figure of the root, then

$$(f+n)^2 = f^2 + 2fn + n^2.$$

Therefore, if we take away f^2 we shall have $2fn + n^2$, and if we divide this by 2f we shall find nearly n.

Since the entire explanation of square root depends on this fact, pupils are advised to see that this is clearly understood, both from the figure and from the formula, before proceeding.

$$\begin{array}{rrll}
 & & 48 = f + n, \text{ the root.} & \\
 & 2304 & \text{contains } f^2 + 2fn + n^2 & \\
 & f^2 = 1600 & & \\
2f = 80 & 704 & \text{“} & 2fn + n' \\
2f + n = 88 & 704 & = \text{“} & \text{“}
\end{array}$$

The greatest square of 10's in 2209 is 1600. This is f^2, and therefore f = 40.

Then 704 contains $2fn + n^2$, because f^2 has been subtracted. Dividing this by 2f, we shall have nearly n. Hence n = 8. But 2f + n multiplied by n equals $2fn + n^2$. Therefore $2304 = f^2 + 2fn + n^2 = 40^2 + 2 \times 40 \times 8 + 8^2 = 48^2$.

See also the figure in Art. 264, where it appears that the large square equals the sum of $40^2 + 2 \times 40 \times 8 + 8^2$.

$$\begin{array}{rr}
f^2 = & 1600 \\
2fn = \left\{ \begin{array}{r} fn = \\ fn = \end{array} \right. & \begin{array}{r} 320 \\ 320 \end{array} \\
n^2 = & 64 \\
\hline
 & 2304
\end{array}$$

If we separate the number into periods of two figures each, beginning at the decimal point, we shall find the number of integral places in the root, but it is not necessary.

ROMAN NOTATION.

266. **In Roman Notation,** numbers are expressed by the following seven letters: I, V, X, L, C, D, M.

Their values are:

I,	V,	X,	L,	C,	D,	M.
1,	5,	10,	50,	100,	500,	1000.

267. The other numbers are made by combining, as follows: Letters repeated are added. A less value written before a greater is subtracted, as IV = 4; but written after a greater it is added, as VI = 6; written between two larger values it is subtracted from the last, as XIX = 19.

268. The first nine numbers are:

I,	II,	III,	IV,	V,	VI,	VII,	VIII,	IX.
1,	2,	3,	4,	5,	6,	7,	8,	9.

269. The tens are:

X,	XX,	XXX,	XL,	L,	LX,	LXX,	LXXX,	XC.
10,	20,	30,	40,	50,	60,	70,	80,	90.

270. The numbers in the tens, as 51, 52, etc., are formed by annexing the first nine numbers in their order to the letter or letters that make the ten or tens, as LI = 51, LII = 52, etc.

271. The hundreds are:

C,	CC,	CCC,	CCCC,	D,	DC,	DCC,	DCCC,	DCCCC,	M.
100,	200,	300,	400,	500,	600,	700,	800,	900,	1000.

272. The numbers in the hundreds are formed by annexing the first 99 numbers in their order to the letter or letters that make the hundred or hundreds, as DCIX = 609.

SHORT PROCESSES.

273. To multiply by 25 ($\frac{1}{4}$ of 100),

Multiply by 100 and divide the product by 4.

274. To divide by 25,

Multiply by 4 and divide the product by 100.

275. To multiply by 2.5 or $2\frac{1}{2}$ ($\frac{1}{4}$ of 10),

Multiply by 10 and divide the product by 4.

276. To multiply by 50 ($\frac{1}{2}$ of 100),

Multiply by 100 and divide the product by 2.

277. To divide by 50,

Multiply by 2 and divide the product by 100.

278. To multiply by $33\frac{1}{3}$ ($\frac{1}{3}$ of 100),

Multiply by 100 and divide the product by 3.

279. To divide by $33\frac{1}{3}$,

Multiply by 3 and divide the product by 100.

280. To multiply by $3\frac{1}{3}$ ($\frac{1}{3}$ of 10),

Multiply by 10 and divide the product by 3.

281. To divide by $3\frac{1}{3}$.

Multiply by 3 and divide the product by 10.

282. To multiply by $16\frac{2}{3}$ ($\frac{1}{6}$ of 100),

Multiply by 100 and divide the product by 6.

283. To divide by $16\frac{2}{3}$,

Multiply by 6 and divide the product by 100.

284. To multiply by $66\frac{2}{3}$ ($\frac{2}{3}$ of 100),

Multiply by 100 and subtract from the product $\frac{1}{3}$ of it.

285. To divide by $66\frac{2}{3}$,

Divide by 100 and add to the quotient $\frac{1}{2}$ of it.

286. To multiply by $12\frac{1}{2}$ ($\frac{1}{8}$ of 100),

Multiply by 100 and divide the product by 8.

287. To divide by $12\frac{1}{2}$,

Multiply by 8 and divide the product by 100.

288. To multiply by $14\frac{2}{7}$ ($\frac{1}{7}$ of 100),

Multiply by 100 and divide the product by 7.

289. To divide by $14\frac{2}{7}$,

Multiply by 7 and divide the product by 100.

290. To multiply by a number that is a little less than some multiple of 10, as 100, 1000, etc.,

Multiply the multiplicand by the multiple of 10 that differs little from the given multiplier. Then multiply the multiplicand by the difference between this multiple of 10 and the given multiplier, and find the difference of the two products.

Thus, to multiply by 998 (1000 — 2), multiply by 1000 and then by 2, and take the difference of the products.

291. To find the price of a quantity when the price of a given quantity is known.

Example.—If 12 marbles cost 18c., what will 10 marbles cost?

Illustration.—$\frac{18}{12}$ = price of 1 marble, $\frac{{}^{3}\cancel{18}}{{}^{2}\cancel{12}}\times{}^{5}\cancel{10}=15$, price of 10 marbles.

292. In many cases such problems are much more readily performed.

Example.—If 9 apples cost 14c., what will 18 cost? Since the number of apples is twice as large, the price will be twice as large, or 28c.

If 12 pears cost 9c., what will 8 cost? Since the number of pears, 12, has been decreased by $\frac{1}{3}$ of itself, the price, 9c., must also be decreased by $\frac{1}{3}$ of itself. $\frac{1}{3}$ of $9 = 3$, $9 - 3 = 6$.

293. Frequently the percentage is found most readily by expressing the per cent. in the form of a common fraction.

Example.—Find 12½% of 72. 12½% = ⅛, ⅛ of 72 = 9.

IMPORTANT PERCENTS TO BE REMEMBERED.

PERCENTS CORRESPONDING TO EIGHTHS.

$12\frac{1}{2}\ \% = \frac{1}{8}$
$25\ \% = \frac{1}{4}$
$37\frac{1}{2}\ \% = \frac{3}{8}$
$50\ \% = \frac{1}{2}$
$62\frac{1}{2}\ \% = \frac{5}{8}$
$75\ \% = \frac{3}{4}$
$87\frac{1}{2}\ \% = \frac{7}{8}$
$100\ \% = \frac{8}{8}$

PERCENTS CORRESPONDING TO SIXTHS.

$16\frac{2}{3}\ \% = \frac{1}{6}$
$33\frac{1}{3}\ \% = \frac{1}{3}$
$50\ \% = \frac{1}{2}$
$66\frac{2}{3}\ \% = \frac{2}{3}$
$83\frac{1}{3}\ \% = \frac{5}{6}$
$100\ \% = \frac{6}{6}$

PERCENTS CORRESPONDING TO FIFTHS.

$20\ \% = \frac{1}{5}$
$40\ \% = \frac{2}{5}$
$60\ \% = \frac{3}{5}$
$80\ \% = \frac{4}{5}$
$100\ \% = \frac{5}{5}$

294. To find a per cent. of a number when it is the sum of two convenient percents.

To find $36\frac{2}{3}\%$ of 90.

Separate the given per cent. into two convenient percents, find the percents thus expressed and take their sums.

Illustration: $36\frac{2}{3}\%=20\%+16\frac{2}{3}=\frac{1}{5}+\frac{1}{6}$,
$\frac{1}{5}$ of $90=18$, $\frac{1}{6}$ of $90=15$,
$36\frac{2}{3}$ of $90=33$.

295. To find a per cent. of a number when the per cent. is 1% more or less than a convenient per cent.

Find $13\frac{1}{2}\%$ of 96, $13\frac{1}{2}\%=12\frac{1}{2}\%+1\%$,
$12\frac{1}{2}\%=\frac{1}{8}$ of 96 or 12. $1\%=\frac{1}{100}$ of 96 or .96; hence
$13\frac{1}{2}\%$ of $96=\$12.96$.

Find the convenient per cent. of the number and increase it by $\frac{1}{100}$ of the number.

If the per cent. is 1% less than the convenient per cent., proceed as above, but decrease by $\frac{1}{100}$ of the number.

296. To find what per cent. one number is of another.

Example.—7 is what per cent. of 500? It is often most convenient to find 1%. 1% of 500 = 5. If 5 = 1% of 500, $7 = 1\frac{2}{5}\ \%$.

And likewise,

297. To find a number when a given per cent. is known.

Example.—45 is 9% of what number? 45 = 9%, 1% = 5, 100% or the number = 500.

COMPOUND INTEREST.

298. **Compound Interest** is interest computed, at certain intervals, on both the principal and unpaid interest. These intervals are usually annually, semi-annually or quarterly.

Example.—

299. Find the amount of $630, at compound interest, for 2 years 6 months at 5%; also, the compound interest.

Process.—

Amount for 1st year = $661.50
" " 2d " = 694.58
" " 6 mos. = 729.31
$729.31 — $630 = 99.31

Explanation.—Find the amount for the first interval, then the amount of this amount for the next interval, and finally the amount of this last amount for the last interval. Subtract the principal from the last amount and we have the compound interest.

ANNUAL INTEREST.

300. **Annual Interest** is interest on the principal and each year's interest from the time each year's interest is due until paid. Annual interest is computed when the words "with interest payable annually" are inserted.

301.

Example.—

$350. Rochester, N. Y., June 15, 1900.
On demand, I promise to pay Edward Jackson, or order, three hundred and fifty dollars, with interest annually. Value received.
EUGENE BAKER.

What is due on this note June 15, 1904?

Interest due on principal, annually, $350 × .06 = $21.00
Principal, - - - - - - - - $350 00
Total annual interest, - - - 21 × 4 = 84.00
Interest for 3 yrs. on the $21, due June 15, 1901, = 3.78
" " 2 " " " 21, " " 15, 1902, = 2.52
" " 1 " " " 21, " " 15, 1903, = 1.26
$441.56

Note.—The simple interest on the several interests due annually may be thus found: The interest on $21 for 3 yrs. + 2 yrs. + 1 yr. = interest on $21 for 6 yrs. or $7.56.

PROPERTIES OF NUMBERS.

302. **An even number** is one that is exactly divisible by 2; as 2, 4, 6, 8, etc.

303. **An odd number** is one that is not exactly divisible by 2; as 1, 3, 5, 7, 9, etc.

304. **A prime number** is one that is divisible by no whole number except itself or one; as 2, 3, 5, 7, 11, etc.

NOTE.—2 is the only even prime number.

Numbers may be mutually prime to each other when taken alone they would not be prime; 4 and 9 are mutually prime, because no number except 1 will divide both. But when taken alone neither is a prime number.

305. **A composite number** is one that is divisible by other numbers than itself or one; as 4, 6, 9, etc.

EXERCISE.—Repeat the even numbers from 2 to 30.
" " odd " " 1 " 31.
Write the prime numbers from 1 to 41.
" " composite " " 4 " 40.

306. Since factors are numbers, there will be **prime factors and composite factors.**

A prime factor is a prime number. What is a composite factor?

307. The prime factors of a number are those prime numbers whose continued product is the number; thus the prime factors of 12 are 2, 2, 3; 2 × 2 × 3 = 12.

308. **To factor a number** is to separate it into its factors. To do this, the following facts will be convenient:

Every number having 0 or an even number in the place of units is divisible by 2. Any number is divisible by 3 when the sum of its figures is divisible by 3: as 537; 5 + 3 + 7 = 15. 15 is divisible by 3, hence 537 is divisible by 3. All even numbers that are divisible by 3 are divisible by 6. All numbers are divisible by 4 when 4 will divide the two right hand numbers. Numbers ending in 0 or 5 are divisible by 5. Numbers are divisible by 8 when 8 will divide the last three figures on the right. 9 will divide any number when it will divide the sum of the figures of the number.

309. **Factoring** is the process of obtaining the factors or divisors of a number.

The problem is usually to find the prime factors.

Find the prime factors of 108.

108 = 12 × 9. 12 = 2 × 2 × 3 and 9 = 3 × 3; hence the prime factors of 108 are 2 × 2 × 3 × 3 × 3. EXPLANATION.—Take any convenient factors and then factor these factors. It is evident that 108 has the two factors 12 and 9. 12 has the factors 2 × 2 × 3, 9 has the factors 3 × 3; hence, 2 × 2 × 3 × 3 × 3 are the prime factors of 108.

EXERCISES.

What are the prime factors of:

72
35
64
46
36
42
24
32
16
27
81
99

310. Large numbers are factored as follows:

EXPLANATION.—Divide the number by any prime number and this quotient by another, and thus continue until the quotient is prime. The several divisors and the last quotient, if it is more than one, are the prime factors.

$$\begin{array}{r|r} 2 & 108 \\ \hline 2 & 54 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

NOTE.—For finding the least common multiple of numbers see p. 866, article 96, of the text book.

311. The **Greatest Common Divisor** is the product of all the common prime factors. It is abbreviated thus: G. C. D.

Find the G. C. F. of 12, 18 and 27.

PROCESS.—Resolve each number into its prime factors. Take each common factor the least number of times it is found in any one of the numbers. See Art. 309.

EXPLANATION.—3 is the only number that occurs as a factor of all the numbers. This occurs twice in each one Hence, the greatest common factor would be 3 × 3 or 9.

$$\begin{aligned} 36 &= 2 \times 2 \times 3 \times 3 \\ 9 &= 3 \times 3 \\ 27 &= 3 \times 3 \times 3 \end{aligned}$$

312. The **Least Common Multiple** is the least common dividend or the least number that can be divided by each of the given numbers. It is thus abbreviated: L. C. M.

313. The L. C. M. is found the same as the G. C. D., excepting that each factor is taken the greatest number of times it occurs in any one of the given numbers.

From the above example, illustrating the greatest common divisor, it will be seen that 2 and 3 are the factors. The largest number of times that 2 is found in any one of the numbers is two times, and 3 is found three times. Hence, the L. C. M. is 2 × 2 × 3 × 3 × 3 or 108.

314. When the numbers are large and difficult to factor, divide the greater by the less; and if there is a remainder, divide the number just used as divisor by it. Thus continue until the last divisor and remainder are prime to each other. This last divisor is the G. C. D.

If there are more than two numbers, proceed with any two as above. Repeat the operation, using the G. C. D. just found with any one of the unused numbers; and so continue until all the numbers have been thus used. The last divisor will be the G. C. D.

Find the greatest common divisor of 849 and 1132.

PROCESS.—849)1132(1
849
283)849(3
849

283 is the **Greatest Common Divisor.**

315. The **Least Common Multiple** may be found by dividing each number by the G. C. D. and taking the product of the G. C. D. and the L. C. M. of the several quotients.

The L. C. M. may be found from the above example of the G. C. D., thus:

$$\begin{array}{r|rr} 283) & 1132 & 849 \\ \hline & 4 & 3 \end{array} \quad \text{L. C. M.} = 283 \times 4 \times 3 = 3396.$$

Mechanical Arithmetic.

Axioms and Definitions.

1. A straight line is the shortest distance between two points; or, it is a line which does not change its direction.

2. Parallel lines are those which, however far they may be produced, remain the same distance from each other.

3. When two straight lines are drawn from the same point the opening between them is called an angle.

4. When one straight line is drawn perpendicular to another, the angles on each side of the perpendicular are called right angles, or angles of ninety degrees each; and when two straight lines cross each other so as to form four equal angles each angle is called a right angle.

5. When an angle is greater than a right angle it is called an obtuse angle.

6. When an angle is less than a right angle it is called an acute angle.

7. A surface is that which has length and breadth but no thickness. A level surface is called a plane surface.

8. The area of a surface is the amount of space it covers.

9. When a surface is bounded by four straight lines which meet so as to form four right angles, it is called a rectangle; and when this rectangle has all its four sides of equal length it is called a square.

10. The line which joins the two opposite corners of a square or rectangle is called a diagonal.

11. A plane surface or figure bounded by three straight lines is called a triangle; and the side of the triangle on which it is supposed to rest is called its base. When a triangle has one right angle, it is called a right-angled triangle, and the side opposite the right angle is called the hypothenuse.

12. When a line is dropped from the angle of a triangle opposite the base perpendicularly upon the base, or upon the base produced, it measures the altitude of the triangle.

13. A four-sided plane figure having its sides parallel, but its angles not right angles, is called a parallelogram. Its angles need not be right angles.

14. A four-sided plane figure having no two sides parallel is called a trapezium; but if two of its sides are parallel it is called a trapezoid.

15. The sum of all the sides of a plane figure is called its perimeter.

16. A surface that is not a plane surface, but rounded, is called a convex surface. The surface of a cannon ball is convex.

17. A circle is a plane figure bounded by a curved line, every point of which is equally distant from a point within called the centre.

18. The curved boundary line of a circle is called its circumference.

19. A straight line drawn through the centre of a circle and terminating on both sides at the circumference is called its diameter. Half a diameter, that is, the distance from the centre to the circumference on one side, is called the radius of the circle.

20. A solid is a figure or object which has length, breadth and thickness. These are called the three dimensions. Two of them—length and breadth—are required for the measurement of plane surfaces; but all three are required for the measurement of solids.

21. A cube is a solid whose six sides are six equal squares. When a solid figure is contained by six angular surfaces not of equal dimensions, it is called a rectangular solid. A box three feet long, two feet wide and one foot high is a rectangular solid, and the portion of space it occupies is called its volume. If, however, the inside measurements or dimensions of a rectangular solid be used, as is generally the case when the extent of its contents is sought to be known, then we no longer speak of its "volume" but of its "capacity" for holding things.

22. When a solid is bounded by a curved surface, every point of which is equally distant from a point within called its centre, it is called a globe.

23. When a solid figure is circular and elongated in form, like a roller, it is called a cylinder.

24. For the various standards of measure consult WEIGHTS AND MEASURES, elsewhere in this book.

Rules for Areas, Volumes, Capacities.

1. The area of a rectangle is found by multiplying its length in yards, feet or inches, by its breadth. The product will be square yards, feet or inches, according to the unit of denomination used. Where the rectangle is a square, simply

square one of its sides, which is the same thing as the above.

2. To find the area of a triangle multiply half its base by the perpendicular to its base, or to its base produced, let fall from the opposite angle. This is because every triangle is equal to half of a rectangle erected on its base.

To find the area of a triangle whose three sides are given, add the three sides together; take half the sum; from this half sum subtract each side separately; multiply the three remainders together, and the product by the half sum; extract the square root of the product.

3. To find the hypothenuse of a right-angled triangle, add the square of the base to the square of the perpendicular and extract the square root of the sum. To find either the perpendicular or base, knowing the other two sides, subtract the square of the base, or of the perpendicular, from the square of the hypothenuse, and extract the square root of the difference.

4. To find the area of a parallelogram, multiply the base by the perpendicular height.

5. To find the area of a trapezium, divide it into triangles, and find the area of each as per rule already given.

6. To find the area of a trapezoid, multiply half the sum of its parallel sides by the altitude.

7. To find the circumference of a circle, multiply the diameter by 3.1416.

8. To find the diameter of a circle, divide the circumference by 3.1416.

9. To find the area of a circle, multiply the square of the diameter by .7854; or, multiply the circumference by one-half the radius.

10. To find the area of the surface of a sphere or globe, multiply the square of the diameter by 3.1416; or, multiply the circumference by the diameter.

11. To find the solidity or contents of a sphere or globe, multiply the area of its surface by one-third of its radius; or, multiply the cube of the diameter by .5236.

12. To find the area of a cylinder, multiply the area of the base by the length.

13. To find the diagonal of a square, multiply the side by ten, diminish this by one per cent of itself, then divide by seven.

14. To measure a solid block, or to find out how much a box, bin or cellar will contain, find the length, breadth and depth in inches, feet or yards; then multiply the three dimensions together. The result will be the cubic inches, feet or yards contained. Cubic inches can be converted into cubic feet by dividing by 1728; and cubic feet to cubic yards by dividing by 27.

15. To find the amount of lumber in a log, take the diameter in inches, square it and subtract sixty; multiply the remainder by half the length of the log in feet, then point off the right hand figure; or, from the diameter of the log in inches subtract four; take one-fourth of the remainder and square it, multiply the product by the length of the log in feet; the result will be the number of feet of lumber that can be sawed from the log.

16. Another measurement of round timber, allowing one-fifth for waste, is to take the girth of the log at both the large and small ends, add them, divide the sum by two, which gives the average or mean girth, take one-fourth of this mean girth and square it, multiply by the length of the log in feet, the result is the cubic feet of four-fifths of the log, the other fifth being allowed the purchaser for waste in sawing.

17. To find the circumference of a tree required to hew a stick of any number of inches square, divide the given side of the square by .225 and the quotient will be the required circumference.

18. To find the contents of a circular vat or cistern, multiply the square of the diameter in feet by the depth in feet, then multiply the product by $\frac{373}{4000}$ for hogsheads, $\frac{373}{2000}$ for barrels, or $4\frac{7}{8}$ for gallons.

19. To find the capacity of a rectangular, or square tank, multiply together the length, breadth and depth in feet, and multiply the product by $\frac{19}{160}$ for hogsheads, $\frac{19}{80}$ for barrels, or $7\frac{1}{2}$ for gallons. Another rule is to multiply together the length, breadth and depth in inches and divide the product by 231. This gives the contents in gallons.

20. To find the number of acres in a rectangular piece of land multiply the length in rods by the breadth in rods and divide by 160.

21. To find the volume of a solid ring, multiply the area of the solid part by the length of the ring.

22. To find the volume of a cylindrical ring, multiply the diameter of the circle it forms by the square of the thickness, and the product by 2.4674.

23. To find the weight of coal in a bin, multiply together the length, breadth and thickness to find the cubic feet, and multiply the cubic feet by 54 for anthracite weight, and by 50 for bituminous weight.

24. To find the volume of a pyramid or cone, multiply the area of the base by one-third of the altitude.

25. To measure corn in a crib, multiply the

length of the crib by the width in inches, and the product by the height in inches of the corn in the crib, then divide the product by 2.748 for the number of heaped bushels in ears. Two heaped bushels of ears are reckoned to give a bushel of shelled corn.

26. To find the weight of water in a rectangular tank, multiply together the length, breadth and depth for the cubic feet, then multiply by 62½ for the pounds, since a cubic foot of water weighs 62½ pounds.

Practical Mechanics.

Brick Work.—Bricks vary much in size, but are ordinarily about 8½ inches long, 4 inches wide, and 2½ inches high; thus, 20 of them, laid dry, occupy the space of a cubic foot. But in laying common brick, the mortar used increases the external surface of the brick to about three inches by 9 inches, or to a total of 27 square inches of surface. In computing material, allowance is made for doors and windows, and corners are counted once, but in estimating labor, it is customary to deduct only a half for openings, and to count corners twice.

Lathing and Plastering.—Lathing is usually estimated by the square yard, and only half the extent of the openings is deducted. A bunch of laths contains 50 laths, each 4 feet long by 1½ inches wide. In nailing them on three-eighths of an inch space is allowed between each lath; thus a bunch of laths will cover about three square yards.

Plastering is also estimated by the square yard, and only half the area of openings is deducted.

Lumber.—Lumber is timber in a sawed state, as in boards, scantling, etc. Thick boards are called planks. Thin boards for covering frame houses are called siding. Stout lumber three or four inches wide and thick is known as studding or scantling, and when the depth is much more than the width, as joist. Lumber is sold by the square foot, or thousand square feet, and a square foot is one foot long, one foot wide and one inch thick. If less than an inch thick, it is still counted as an inch of thickness. In measuring the width of a board, a fraction greater than half an inch is called an inch, and if less than half an inch it is not counted. To measure lumber, multiply the length in feet by the width in inches and divide by twelve. This is for lumber one inch thick. If of greater thickness, multiply the length in feet by the width in inches, and that by the thickness in inches, and divide by twelve, for the number of feet.

Painting.—Painting is usually estimated by the square yard, and the same of kalsomining, the number of coats being specified.

Papering.—Wall-paper is manufactured in rolls eighteen inches wide and twenty-four feet long—forty-eight feet long, if a double roll. So, it is sold and put on only by the roll, a fraction of a roll counting as a whole. In computing for paper the distance around the room is measured in feet, three feet being deducted for each door and window. The difference is then divided by 1½, which gives the number of strips required. The number and cost of the rolls give the cost of the papering.

Roofing.—Slating is done by the square of 100 square feet; tinning, gravelling and slagging are computed by the square foot or yard. Shingling is usually done by the 1,000, or by the square, 1,000 shingles, or a square of shingles, being computed to roof 100 square feet, allowing for waste, and showing four inches to the weather. Shingles are usually of four inches in width, and are sold by the thousand. They come in bunches of 250 each.

Stone Work.—Stone is usually measured and sold by the perch. Masonry is measured by the perch. A perch for either purpose is 16½ feet (rod) long, 1½ feet thick and 1 foot high, or 24.75 cubic feet. Fractional parts of a perch are reckoned as a full perch. In large operations or quantities, stone is measured by the cord of 128 cubic feet, the same as wood, but in estimating no smaller part than a quarter of a cord is considered. One hundred cubic feet of wall is the equivalent of a cord of stone, which it has taken three bushels of lime and a cubic yard of sand to lay. In estimating for stone or cost of masonry, measurements are usually made on the outside of the wall, and small openings are not allowed for.

Wood.—Wood is cut in 4-feet lengths, and a pile of it 4 feet high and 8 feet long (128 cubic feet) is called a cord. It is cut, bought and sold by the cord. To find the number of cords in a rank of wood, multiply its length in feet by 16, and divide by 128.

Interest.—The sixty-day method of computing simple interest at 6 per cent., which is almost the universal one in business circles, is as follows: Set down the principal—say $438—point off two figures to the right; you have 4.38, which is the interest for sixty days at 6 per cent. Half of $4.38, or $2.19, is the interest for thirty days. Add a half, and you have $2.19 + $4.38 = $6.57. If the per cent. be 7, add a sixth of $4.38 to itself; if 5 per cent., deduct a sixth, and so on.

Civil Service Grammar and Composition

A

Modern Guide to Correct Speech

SOUNDS, LETTERS, WORDS AND SENTENCES IN ALL THEIR GRAMMATICAL RELATIONS

WITH

A FULL CODE OF RULES FOR SPELLING

WORD-BUILDING and DERIVATIONS

A Self-Teaching Volume

Civil Service Grammar

provides a course of self-instruction in our language. It simplifies grammar and makes it inviting and easy to learn

A REGULAR TEXT-BOOK ARRANGEMENT IS PRESERVED, SHOWING ALL THE PRINCIPLES OF

I. ORTHOGRAPHY, or Grammar of Sounds and Letters.
II. ETYMOLOGY, or Grammar of Words.
III. SYNTAX, or Grammar of Word Arrangement.
IV. ANALYSIS, or Grammar of Sentence Construction.
V. PROSODY, or Grammar of Verse Making.
VI. WORD-BUILDING, by Affixes and Prefixes.
VII. ENGLISH COMPOSITION.

SPELLING AND DERIVATIONS EMBRACE

I. The Latest Code of Spelling Rules.
II. View of Disputed Spellings.
III. Simplifications in Spelling.
IV. Improved Spellings.
V. Improved Spellings of Names of Places.
VI. English Roots and Derivations.
VII. Latin Roots and Derivations.
VIII. Greek Roots and Derivations.
IX. Words Derived from Names of Persons and Places.
X. Spellings of Business Words and Proper Names.

The Volume brings correct use of English within reach of all, an acquisition richer than a golden prize.

CIVIL SERVICE GRAMMAR AND COMPOSITION.

LANGUAGE. Spoken language consists of a number of connected *sounds* conveying the idea or meaning of one using them. There must, too, be a hearer of such sounds who has agreed that they shall mean what the speaker desires to express. When a large number of people are so agreed, spoken language becomes a vehicle of expression in a wide sense. But as people grow more intelligent, the need of a written language begins to be felt. Therefore, all civilized peoples have, in the course of time and not without difficulty, made themselves a set of *signs* by means of which the sounds agreed upon for expression of ideas may be indicated on paper, that is, may become written or printed. These signs take the form of letters, and the science of letters is called Alphabetics, while the science of sounds is called Phonetics.

ENGLISH GRAMMAR.

Parts of Grammar.—Grammar considers and examines language from its smallest parts up to its most complex parts. The smallest part of a written language is a *letter;* the next smallest part is a *word;* with words we make *sentences;* with words we also make musically measured sentences, or *verse.* There are, then, four kinds or parts of grammar:

(i) **Orthography**, or the grammar of *letters.* Orthography literally means *right writing*, or the part of grammar which treats of letters and the art of spelling correctly.

(ii) **Etymology**, or the grammar of *words.* Etymology literally means *true account*, or the part of grammar which relates to the changes in the form of words in the language; inflection.

(iii) **Syntax**, or the grammar of *sentences.* Syntax literally means *together in order*, or the part of grammar which treats of the proper construction of *sentences.*

(iv) **Prosody**, or the grammar of musical or measured *verse.* Prosody literally means *to or for a song*, or the part of grammar which treats of the quantity of syllables, of accent, and of the laws of versification or metrical composition.

ORTHOGRAPHY;

Or, the Grammar of Sounds and Letters.

Sounds.—In English there are two kinds of sounds: (i) open sounds, (ii) stopped sounds. The open sounds are called *vowels*, the stopped sounds *consonants.*

Vowels.—Vowels do not need the aid of other letters to enable them to be sounded. When two vowels are sounded together in a word, as *oi* in boil, or *ai* in aisle, they are called a *diphthong;* when three are sounded together, as *eau* in beauty, they are called a *triphthong.*

The vowels are *a, e, i, o, u,* and sometimes *w* and *y.* All other letters are consonants.

W and *y* are vowels except when they precede a vowel sound in the same syllable. *W* in *won* is a consonant; but *w* in *law* is a vowel. *Y* in *young* is a consonant; but *y* in *boy* is a vowel.

Consonants.—There are different ways of stopping or checking the continuous flow of sound.

(i) **Labials.**—Labial pertains to the lip. When sounds are stopped by the lips, as in *ib, ip,* such consonants are called *Labials.*

(ii) Dentals.—Dental pertains to the teeth. When sounds are stopped by the teeth, as in *id*, *it*, such consonants are called *Dentals.*

(iii) Gutturals.—Guttural pertains to the throat. When sounds are stopped in the throat, as in *ig*, *ik*, such consonants are called *Gutturals.*

(iv) Palatals.—Palatal pertains to the palate. Sounds uttered by the aid of the palate, as *k* in *kirk*, are called *Palatals.*

The first three of the above set of sounds are classed as *Mutes*, because the sound comes to a sudden stop. Some consonants do not stop abruptly, but have a prolonged sound; such are called *Spirants*, or breathing letters.

The Alphabet.—The letters of any language are called its Alphabet. The English alphabet contains twenty-six letters. These letters represent some forty-three separate sounds. The alphabet is, therefore, not a perfect one, the vowels chiefly being called upon to do more than their share of work. Yet such letters as *c, q, x, w* and *y* could be dispensed with, for the work of *c* could be done by a *k* or *s;* that of *q* by *k; x* equals *ks* or *gs; w* could be represented by *oo*, and the work of *y* could be done by *i.*

ETYMOLOGY;

Or, the Grammar of Words.

Classification of Words.—There are nine kinds or classes of words in our language. They are commonly called "Parts of Speech." These parts of speech are classed and defined as follows:

I.—THE ARTICLE.

The Article is the word *a, an* or *the* placed before a noun to show whether it is used definitely or indefinitely.

(1) *A* is called the Indefinite Article, and *the* the Definite Article.

(2) *A* is written before a consonant sound, as *a cow, a bird.* The article *a* is written *an* when placed before a vowel sound; as, *an eagle, an ass.*

(3) *A* or *an* means one, and is used only before the singular number; as, *a man, an apple.*

(4) The Definite Article *the* designates some particular noun, and is used before both the singular and plural numbers; as, *the house, the houses.*

Some grammarians class articles with adjectives, as modifying words with limited power.

II.—THE NOUN.

A noun is the name of any person, place or thing; it is also any word or words used as a name. *John, ball, house, book,* are all names, therefore nouns. *To walk* is healthful; here *to walk* is the name of an action, and is, therefore, a noun.

(1) Nouns are of two classes, **Proper** and **Common.**

(2) A Proper noun is the name of an individual, and is given to only one of a class of objects; as, *John, London, Shakespeare.* It should always begin with a capital letter.

(3) A Common noun is the name of a person, place or thing, considered not merely as an individual, but as one of a class; as, *horse, town, boy, river.*

(4) A Collective noun is the name of a collection of persons or things looked upon as one; as, *army, committee, crowd.* It is also called a noun of multitude.

(5) **Gender.**—Nouns have Gender, which is a mode of distinguishing their sex. There are three genders, **Masculine, Feminine** and **Neuter.**

(6) The Masculine gender denotes objects of the male sex; as, *Harry, boy, man.*

(7) The Feminine gender denotes objects of the female sex; as, *girl, Harriet, woman.*

(8) The Neuter gender denotes objects without sex; as *tree, house, London.*

(9) Some grammarians make a fourth gender, called the Common gender, when the sex cannot be exactly told; as, *sheep, bird, servant.*

(10) Gender may be distinguished in four ways:

(a) By the use of different words; as *boy, girl; horse, mare; husband, wife.*

(b) By different terminations of the noun; as, *actor, actress; host, hostess; duke, duchess.*

(c) By the use of prefixes; as, *man-servant, maid-servant; he goat, she goat.*

(d) By the use of suffixes; as, *pea-cock, pea-hen; school-master, school-mistress.*

(11) **Number.**—Number in nouns is the mode of telling whether we are speaking of one thing or more than one. There are two numbers, the **Singular** and **Plural.** The Singular number denotes a single thing, or one. The Plural number denotes more than one. Plurals are formed as follows:

(a) The first mode is by adding *s* or *es* to the singular; as *book, books; house, houses; pen, pens.* The plural is formed by adding *es* when the nouns end in *ch, s, sh, x* and *z;* as, *church, churches; gas, gases; box, boxes.*

(b) The second mode is by adding *ves* to nouns ending in *f* or *fe;* as, *loaf, loaves; thief, thieves; life, lives,* first omitting the *f* or *fe.*

(c) When a noun ends in *y*, preceded by a consonant, plurals are made by changing the *y* into *ies;* as, *lady, ladies.* But when the *y* follows a vowel the plural is formed by simply adding an *s;* as, *boy, boys; day, days.*

(d) A fourth mode is by adding *en*, with sometimes an addition or change of a letter in the word; as, *ox, oxen; child, children; brother, brethren.*

(e) A fifth mode is by changing the vowel sound of the noun; as, *man, men; foot, feet; tooth, teeth.*

(f) Some nouns have the same form in the plural as in the singular; as, *deer, sheep, trout, mackerel.*

(g) Some nouns can be used only in the plural; as, *bellows, ashes, molasses.*

(12) Person.—Nouns have Person, which gives their distinction in relation to the speaker. There are three persons, **First, Second** and **Third.**

(a) The First person denotes the speaker; as, *I, William,* am talking.

(b) The Second person denotes the person spoken to; as, *George,* please do not cry.

(c) The Third person denotes the person spoken of; as, *The boys* are very good.

(13) Case.—Case is the form given to a noun to show its relation to other words in the sentence. Nouns have three cases, **Nominative, Possessive and Objective.**

(a) The Nominative case is that in which a noun is the subject of a verb. It always answers to the question Who? or What? and has always a verb that goes with it, and asserts something about it; as, *John* strikes. Who strikes? Ans., John. What does John do? Ans., John strikes.

(b) The Possessive case denotes ownership or possession. It is used chiefly with nouns that are the names of living beings. In the singular number it is formed by adding to the nominative case an apostrophe (') and an *s;* as, *John's* book; *a cat's* tail.

When the nominative is plural and ends in an *s*, an apostrophe only is added; as, *The attorneys'* book; *the peoples'* party; but when the plural does not end in *s,* both the apostrophe and *s* must be added; as, *men's* works.

(c) The Objective case is the object of an active transitive verb or preposition, and is generally placed after the verb. It may be found by putting whom? or what? after the verb or preposition and asking the question. John struck his *brother.* Struck whom? Ans., *Brother.* Therefore brother is the object of the verb "struck." Susan went into the *house.* Into what? Ans., *House.* Therefore house is the object of the preposition "into."

(14) Declension or Inflexion of Nouns.—The foregoing changes in the forms of nouns (also of pronouns), to indicate their gender, number, person and case, are called Declension. When you speak of these changes in connection with parts of speech in general they are called Inflection. An arrangement showing declension would appear thus:

Singular.			*Plural.*		
Nom.	Poss.	Obj.	Nom.	Poss.	Obj.
Friend,	friend's,	friend.	Friends,	friends',	friends.
Man,	man's,	man.	Men,	men's,	men.
Church,	church's,	church.	Churches,	churches',	churches.
Lady,	lady's,	lady.	Ladies,	ladies',	ladies.
City,	city's,	city.	Cities,	cities',	cities.

The student should extend this arrangement of declension to other nouns.

III.—THE ADJECTIVE.

The Adjective is a word that goes with a noun to describe or modify it. It is a noun marking word; as, a *white* rose, a *great* man, Jane is *studious.*

(1) Adjectives do not always stand before the noun they describe or modify. We may say, The *studious* girl, or The girl is *studious.* In either case girl is described or modified.

(2) Nouns may become adjectives when used to express some quality of other nouns; as, *iron* rod, *sea* water.

(3) Some adjectives are used as nouns, and therefore take a plural form, and may take case; as, *Romans, Christians, superiors.*

(4) Numeral Adjectives. — Numeral adjectives are those which express number. They are of three kinds, **Cardinal, Ordinal** and **Multiplicative.**

(a) The Cardinal Adjectives denote number or quantity; as, *one, two, three, four.*

(b) The Ordinal Adjectives denote order or arrangement; as, *first, second, third.*

(c) The Multiplicatives denote how many times; as, *single, double, triple.*

(5) Comparison of Adjectives.—Adjectives are made to vary by **Comparison.** There are three Degrees of Comparison; the **Positive, Comparative and Superlative.**

(a) The Positive Degree is the simple form of the adjective, expressive of quality; as, *great, small, white.*

(b) The Comparative Degree expresses the quality in a higher or lower degree; as, *greater, smaller, whiter.* The comparative degree brings together only two ideas. Thus we may speak of the "greater of the two," but not "of the three."

(c) The superlative Degree expresses quality in the highest or lowest degree; as, *greatest, smallest, whitest.* It requires that three things shall be compared. Thus it would be incorrect to say: "He is the tallest of the two."

(d) In words of one syllable the Comparative Degree is commonly formed by adding *er,* and the Superlative by adding *est,* to the Positive Degree; as, *great, greater, greatest.* When adjectives have more than one syllable they are usually compared by prefixing to the Positive Degree the words *more* and *most;* as, *recent, more recent, most recent; numerous, more numerous, most numerous.*

(e) The most frequently used adjectives have irregular comparisons. Here is a partial list:

Positive.	*Comparative.*	*Superlative.*
Bad,	worse,	worst.
Ill,	worse,	worst.
Far,	farther,	farthest.
Fore,	former,	foremost.
Good,	better,	best.
Hind,	hinder,	hindmost.
Little,	less,	least.
Many,	more,	most.
Much,	more,	most.
Nigh,	nigher,	nighest (next).
Old,	older,	oldest.
Old,	elder,	eldest.

IV.—THE PRONOUN.

A Pronoun is a word that is used instead of a noun. We say, "John went away yesterday; *he* looked quite happy." In this case the pronoun *he* stands in the place of John.

Pronouns are divided into three classes: **Personal, Relative** and **Adjective.** Personal and Relative pronouns have Gender, Number, Person and Case. Adjective pronouns have Number only.

(1) **Personal Pronouns.**—Personal Pronouns are so called because they denote person by themselves, without reference to any other word. Personal Pronouns are three in number; (1) The Personal Pronoun of the First Person, which is *I*, and indicates the person speaking; (2) The Personal Pronoun of the Second Person, which is *Thou*, and indicates the person spoken to; (3) The Personal Pronoun of the Third Person, which is *He, She, It*, and indicates the person spoken of.

(a) The **First Personal Pronoun** has, of course, no distinction of gender, and is thus declined:

	Singular.	*Plural.*
Nominative,	I,	We.
Possessive,	My, or Mine,	Our, or Ours.
Objective,	Me,	Us.

(b) The **Second Personal Pronoun** has no distinction of gender, and is thus declined:

	Singular.	*Plural.*
Nominative,	Thou,	You, or ye.
Possessive,	Thine, or Thy,	You, or yours.
Objective,	Thee,	You.

(c) The **Third Personal Pronoun** requires the distinction of gender, because it is necessary to indicate the sex of the person we are talking of. It is thus declined:

	SINGULAR.			PLURAL.
	Masculine.	*Feminine.*	*Neuter.*	*All Genders.*
Nom.,	He,	She,	It,	They.
Poss.,	His,	Her, or Hers,	Its,	Their, or Theirs.
Obj.,	Him,	Her,	It,	Them.

(d) Out of the above pronoun forms are made the *Compound Personal Pronouns*, which are *myself, thyself, himself, herself* and *itself*, with their plurals *ourselves, yourselves, themselves.*

(2) **Relative Pronouns.**—Relative Pronouns are those which relate to some word going before, called the antecedent. They are *Who, Which, What* and *That*. They are always of the same gender, number and person as their antecedents.

(a) *Who* is used in speaking of persons; as, "The boy *who* died;" "The girl *who* sang."

In asking questions *Who* is called an Interrogative Pronoun; and in answering questions it is called a Responsive.

(b) *Which* is used in speaking of inferior animals and things without life; as, "The horse *which* I sold;" "The house *which* John built."

In asking questions *Which* is called an Interrogative pronoun; and in answering questions, a Responsive.

(c) *Who* and *Which* are alike in both numbers, and are thus declined:

	Sing. and Plural.
Nominative,	Who.
Possessive,	Whose.
Objective,	Whom.

	Sing. and Plural.
Nominative,	Which.
Possessive,	Whose.
Objective,	Which.

(d) *That* may be used in the place of *Who* or *Which*. *That* and *What* are indeclinable.

(e) *What*, as a relative pronoun, takes the place of *Which* when the antecedent is omitted, and may be used in either the singular or plural. In the sentence, "This is the thing *which* I wanted," if we omit the antecedent (thing) we are compelled to say, "This is *what* I wanted."

In asking questions *What* is called an Interrogative Pronoun, and in answering questions, a Responsive.

(f) There are Compound Relative Pronouns; as, *Whoever, whosoever, whichever, whichsoever, whatever, whatsoever.* They are all indeclinable except *whosoever*, which is thus declined:

	Singular and Plural.
Nominative,	Whosoever.
Possessive,	Whosesoever.
Objective,	Whomsoever.

(3) **Adjective Pronouns.** — Adjective Pronouns modify or limit a noun like adjectives. They are sometimes called Pronominal Adjectives. They are divided into three classes, **Distributives, Demonstratives and Indefinites.**

(a) The **Distributives** are *each, every, either, neither.* They refer separately and singly to each person or thing of a number of persons or things.

Each is used in speaking of two or more; as, "*Each* of you must walk home."

Every is used when speaking of more than two; as, "*Every* one of you must walk home."

Either means one or the other, but not both; as, "*Either* of you may go."

Neither means not either; as, "*Neither* this nor that."

(b) The **Demonstratives** point out in a definite manner the objects to which they relate. They are *This* and *That*, with their plurals, *These* and *Those*. "*This* boy is white, but *that* boy is black." "*These* horses are large, but *those* horses are small."

(c) The **Indefinites** point out in an indefinite manner the objects to which they relate. They are *any, all, such, some, both, one none, other, another. One, other, another* may be used as nouns, and are then declined as nouns are.

V.—THE VERB.

The Verb is that part of speech by means of which we make an assertion or affirmation. It is the keystone of the arch of speech. If I say, "William *talks*," I assert of William that he does something. What do I assert of William? Answer, That he *talks*. Therefore, *talks* is a verb.

(1) Verbs are divided into two classes, **Transitive and Intransitive.**

(2) **A Transitive Verb** denotes an action or feeling which passes over from the doer of the action to the object of the action; as, "The boy *broke* the stick." Here the action of breaking passes over to the object stick.

(3) **An Intransitive Verb** denotes a state, feeling or action that does not pass over, but terminates in the doer or agent; as, "He *sleeps*," "She *walks*," "The grass *grows*."

(4) **Inflections of Verbs.**—Verbs are changed or modified for **Voice, Mood, Tense, Number and Person.** These changes are expressed partly by inflection and partly by the use of auxiliary verbs.

(5) **Voice.**—Voice is that attribute or form of the verb which shows whether the subject of the verb acts or is acted upon. Verbs have two voices, the **Active Voice** and the **Passive Voice.**

(a) The **Active Voice** is that form of the verb which shows that the subject acts, or does what the verb mentions; as, "Jane *jumps* the rope."

(b) The **Passive Voice** is that form of the verb which shows that the subject is acted upon; as, "The rope is *jumped* by Jane."

(c) The Passive voice of a verb is formed by using a part of the verb *to be* and the past participle of the verb; thus:

Active.	*Passive.*
I beat	I am beaten.
Active.	*Passive.*
I have beaten.	I have been beaten.

(6) **Mood.**—The *Mood* of a verb is the manner in which the statement made by the verb is presented to the mind; or, *Mood* denotes the manner or way in which what the verb asserts is expressed. Is a statement made directly? Is a command given? Is a statement subjoined to another? All these are different Moods or modes. There are five Moods: **The Indicative**, the **Subjunctive**, the **Potential**, the **Imperative** and the **Infinitive.**

(a) The **Indicative Mood** makes a direct assertion or puts a question in a direct manner; as, "John is ill;" "Is John ill?" "John Strikes." "Is John ill?" is sometimes called the Interrogative form.

(b) The **Subjunctive Mood** expresses what the verb asserts in the form of a supposition, a doubt, a wish or future contingency. It is always accompanied by another verb in some other mood; that is to say, it is always used in a sentence that is subjoined to a principal sentence; as, "If it *rain* to-day, you cannot go out;" "O that he *were* here!" "Love not sleep, *les* thou come to poverty"

The **Subjunctive Mood** is generally preceded by such conjunctions as *if, though, although, unless, except, whether, lest.* Such words are called signs of the Subjunctive Mood.

The Subjunctive Mood is rapidly dying of use in modern English.

(c) The **Potential Mood** is that form of the verb which is used to express possibility, liberty, power, will, obligation or necessity by the use of *may, can, must, might, could, would,* or *should;* as, "I *may* go"; "He *can* write," etc.

Questions may be asked in the Potential Mood; as, "*May* I go?" "*Must* he write?" etc.

(d) The **Imperative Mood** is the mood of command, request or entreaty; as, "*Go!*" "*Give* me the book;" "*Do come* back!"

The Imperative Mood takes its subject in the second person, as *thou* or *you*, which is seldom expressed; as, "*Go* out," equal to "*Thou* or *you* go out."

(e) The **Infinitive Mood** is that form of the verb which has no reference to any agent or is not limited to a subject; that is, it is unlimited by person, number or time. It is a verb in itself, pure and simple; as, "*To ask;*" "*To write.*"

The preposition *to* is called the sign of the Infinitive Mood.

The *Infinitive* is really a noun, and may be used in both the nominative and objective cases; as, "*To err* is human;" "I wish *to go.*"

(7) **Tense.**—*Tense* is the form the verb takes to indicate time. There are Six Tenses: The **Present**. the **Past**, the **Future**, the **Present-Perfect**, the **Past-Perfect** and the **Future-Perfect.**

(a) The **Present Tense** is that form of the verb which indicates simply present time; as, "I *love.*"

(b) The **Past Tense** is that form of the verb which indicates simply past time; as, "I *loved.*"

(c) The **Future Tense** is that form of the verb which indicates simply future time; as, "I *shall love.*"

(d) The **Present-Perfect Tense** is that form of the verb which indicates what is past, and yet what is connected with the present time; as, "I *have* loved." Here the language implies that which is past and completed, but does not preclude the idea of still loving.

(e) The **Past-Perfect Tense** is that form of the verb which indicates what was past and completed before some other event which is also past; as, "I *had loved.*" Here *had loved* implies what was past and completed before some other past event caused love to cease.

(f) The **Future-Perfect Tense** is that form of the verb which indicates a future time in advance of some other future time; as, "*I shall have loved*"; that is, I shall have done so before some other future happening.

(8) **Participles.**—A **Participle** is a form of the verb which has the function of both a verb and an adjective. There are three Participles: **The Present**, the **Past** or **Perfect** and the **Compound-Perfect.**

(a) The **Present Participle** always ends in *ing*, and indicates what is now going on; as, *loving, going, running.*

(b) The **Past** or **Perfect Participle** indicates what is complete or finished; as, *loved, gone, written.* In regular verbs it ends in *ed;* in irregular verbs its ending is arbitrary. (See examples of irregular verbs.)

(c) The **Compound-Perfect Participle** indicates that which is finished before something else mentioned; as, *having loved; having written.*

(9) **Number.**—Verbs are modified by **Number.** There are in verbs two numbers, the Singular and the Plural. In the Singular we say, "He writes"; in the Plural, "They write."

(10) **Person.**—Verbs are modified by **Person**—that is, the form of the verb is changed to suit (i) the first person, (ii) the second person, or (iii) the third person; as, (i) "I write." (ii) "Thou writest." (iii) "He writes."

(a) Verbs must agree in number and person with their subjects.

(b) Number and person appear thus in connection with the irregular verb *to be:*

Singular.		*Plural.*	
First Person,	I am.	First Person,	We are.
Second Person,	Thou art.	Second Person,	You are.
Third Person,	He is.	Third Person,	They are.

(11) **Regular** and **Irregular Verbs.**—A verb is said to be **Regular** when it forms its Past Tense and Past Participle by adding *ed* to the present tense; as, Present, *love;* Past, *loved;* Past Participle, *loved.*

A verb is said to be **Irregular** when it does not form its Past Tense and Past Participle by the addition of *ed* to the present tense; as, Present, *write;* Past, *wrote;* Past Participle, *written.*

(a) Examples of **Regular Verbs:**

Present Tense.	*Past Tense.*	*Past Participle.*
Love,	loved,	loved.
Walk,	walked,	walked.
Rain,	rained,	rained.
Push,	pushed,	pushed.

(b) **The Irregular Verbs are:**

Present.	*Past.*	*Past Part.*
Abide,	abode,	abode.
Am,—Is,	was,	been.
Arise,	arose,	arisen.
Awake,	awoke, awaked,	awaked.
Bear (*to bring forth*),	bore, bare,	born.
Bear (*to carry*),	bore,	borne.
Beat,	beat,	beat, beaten.
Begin,	began,	begun.
Bend,	bended, bent,	bended, bent.
Bereave,	bereaved, bereft,	bereaved, bereft.
Beseech,	besought,	besought.
Bestride,	bestrid, bestrode,	bestrid, bestridden.
Bid,	bid, bade,	bid, bidden.
Bind,	bound,	bound.
Bite,	bit,	bitten, bit.
Bleed,	bled,	bled.
Blow,	blew,	blown.
Break,	broke,	broken.
Breed,	bred,	bred.
Bring,	brought,	brought.
Build,	built, builded,	built, builded.
Burn,	burned, burnt,	burned, burnt.
Burst,	burst,	burst.
Buy,	bought,	bought.
Cast,	cast,	cast.
Catch,	caught, catched,	caught, catched.
Chide,	chid,	chid, chidden.
Choose,	chose,	chosen, chose.
Cleave (*to split*),	cleft, clove,	cleft, cloven.
Cling,	clung,	clung.
Clothe,	clothed, clad,	clothed, clad.
Come,	came,	come.
Cost,	cost,	cost.
Creep,	crept,	crept.
Crow,	crew, crowed,	crowed.
Cut,	cut,	cut.
Dare (*to venture*)	dared, durst,	dared.
Deal,	dealed, dealt,	dealed, dealt.
Dig,	dug, digged,	dug, digged.
Do,	did,	done.
Draw,	drew,	drawn.
Dream,	dreamed, dreamt,	dreamed, dreamt.
Drink,	drank,	drunk.
Drive,	drove,	driven.
Dwell,	dwelled, dwelt,	dwelled, dwelt.
Eat,	eat, ate,	eat, eaten.
Fall,	fell,	fallen.
Feed,	fed,	fed.
Feel,	felt,	felt.
Fight,	fought,	fought.
Find,	found,	found.
Flee,	fled,	fled.
Fling,	flung,	flung.
Fly,	flew,	flown.
Forsake,	forsook,	forsaken.
Freeze,	froze,	frozen.
Get,	got,	got, gotten.
Gild,	gilded, gilt,	gilded, gilt.
Gird,	girded, girt,	girded, girt.
Give,	gave,	given.
Go,	went,	gone.
Grave,	graved,	graven, graved.
Grind,	ground,	ground.
Grow,	grew,	grown.
Hang,	hanged, hung,	hanged, hung.
Have,	had,	had.
Hear,	heard,	heard.
Heave,	heaved, hove,	heaved.
Hew,	hewed,	hewed, hewn.
Hide,	hid,	hid, hidden.
Hit,	hit,	hit.
Hold,	held,	held.
Hurt,	hurt,	hurt.
Keep,	kept,	kept.

Present.	*Past.*	*Past part.*
Kneel,	kneeled, knelt,	kneeled, knelt.
Knit,	knit, knitted,	knit, knitted.
Know,	knew,	known.
Lade.	laded,	laded, laden.
Lay,*	laid,	laid.

---

* Lay (transitive), *To place; to put; to cause to lie.*

Lead,	led,	led.
Leave,	left,	left.
Lend,	lent,	lent.
Let,	let,	let.
Lie,*	lay,	lain.

---

* Lie (intransitive), *To be at rest in a horizontal position; to recline; to rest; to remain.*

Light,	lighted, lit,	lighted, lit.
Lose,	lost,	lost.
Make,	made,	made.
Mean,	meant,	meant.
Meet,	met,	met.
Mow,	mowed,	mowed, mown.
Pay,	paid,	paid.
Pen (*to coop*),	penned, pent,	penned, pent.
Put,	put,	put.
Quit,	quit, quitted,	quit, quitted.
Read,	read,	read.
Rend,	rent,	rent.
Rid,	rid, ridded,	rid, ridded.
Ride,	rode,	ridden.
Ring,	rang, rung,	rung.
Rise,	rose,	risen.
Rive,	rived,	rived, riven.
Run,	ran, run,	run.
Say,	said,	said.
Saw,	sawed,	sawed, sawn.
See,	saw,	seen.
Seek,	sought,	sought.
Seethe,	seethed,	seethed, sodden.
Sell,	sold,	sold.
Send,	sent,	sent.
Set,†	set,	set.

---

† Set (transitive), *To place; to affix; to adjust; to plant;* (intransitive), *To fall below the horizon, as the sun.*

Shake,	shook,	shaken.
Shape,	shaped,	shaped, shapen.
Shave,	shaved,	shaved, shaven.
Shear,	sheared,	sheared, shorn.
Shed,	shed,	shed.
Shine,	shone, shined,	shone, shined.
Shoe,	shod,	shod.
Shoot,	shot,	shot.
Show,	showed,	shown, showed.
Shred,	shred,	shred.
Shrink,	shrunk,	shrunk.
Shut,	shut,	shut.
Sing,	sung, sang,	sung.
Sink,	sunk, sank,	sunk.
Sit,*	sat,	sat.

---

* Sit, *To be in any local position; to rest; to hold a session; to incubate.*

Slay,	slew,	slain.
Sleep,	slept,	slept.
Slide,	slid,	slid, slidden.
Sling,	slung,	slung.
Slink,	slunk,	slunk.
Slit,	slit, slitted,	slit, slitted.
Smell,	smelled, smelt,	smelled, smelt.
Smite,	smote,	smitten, smit.
Sow,	sowed,	sowed, sown.

Present.	*Past.*	*Past Part.*
Speak,	spoke, spake,	spoken.
Speed,	sped, speeded,	sped, speeded.
Spell,	spelled, spelt,	spelled, spelt.
Spend,	spent,	spent.
Spill,	spilled, spilt,	spilled, spilt.
Spin,	spun,	spun.
Spit,	spit, spat,	spit.
Split,	split, splitted,	split, splitted.
Spoil,	spoiled, spoilt,	spoiled, spoilt.
Spread,	spread,	spread.
Spring,	sprung, sprang,	sprung.
Stand,	stood,	stood.
Stave,	staved, stove,	staved, stove.
Stay,	stayed, staid,	stayed, staid.
Steal,	stole,	stolen.
Stick,	stuck,	stuck.
Sting,	stung,	stung.
Stink,	stunk,	stunk.
Strew,	strewed,	strewed, strewn.
Stride,	strid, strode,	strid, stridden.
Strike,	struck,	struck, stricken.
String,	strung,	strung.
Strive,	strove,	striven.
Swear,	swore,	sworn.
Sweat,	sweat, sweated,	sweat, sweated.
Sweep,	swept,	swept.
Swell,	swelled,	swelled, swollen.
Swim,	swam, swum,	swum.
Swing,	swung,	swung.
Take,	took,	taken.
Teach,	taught,	taught.
Tear,	tore,	torn.
Tell,	told,	told.
Think,	thought,	thought.
Thrive,	thrived, throve,	thrived, thriven.
Throw,	threw,	thrown.
Thrust,	thrust,	thrust.
Tread,	trod,	trod, trodden.
Weave,	wove,	woven, wove.
Weep,	wept,	wept.
Wet,	wet, wetted,	wet, wetted.
Win,	won,	won.
Wind,	wound,	wound.
Work,	worked, wrought,	worked, wrought.
Wring,	wrung,	wrung.
Write,	wrote,	written.

(12) **Defective Verbs.**—Many verbs cannot be used in all the moods and tenses; as, *must, ought, quoth.* They are called **Defective** verbs.

(13) **Auxiliary Verbs.** — **Auxiliary Verbs** are helping verbs; they help to form the moods and tenses of other verbs. They are *shall, may, can, must, be, do, have* and *will.*

(a) *Be, do, have* and *will,* are sometimes used as principal verbs, and when so used they have all the moods and tenses of other verbs; as, they *may be* away; they *do* nothing; they *have* something; they *will* it to be done.

(b) The verb *to be* as an auxiliary is used in all its moods, tenses, numbers and persons to form the passive voice of other words; as, I *am* loved, I *was* loved, I *have been* loved.

(c) *To be* is irregular and intransitive, and has no voice. Only transitive verbs have voice.

(14) **Conjugation** is the name given to the sum-total of all the inflections and combinations of the parts of the verb, as heretofore seen; or, it is the orderly arrangement of its voices, moods, tenses, numbers and persons.

(15) **Conjugation** of the irregular verb *To Be.*

Observe the use made of the auxiliaries *shall* and *will* in the future tenses, indicative mood, of *to be. Shall* in the first person, and *will* in the second and third persons, express future action simply. But if *will* be used in the first person, and *shall* in the second and third persons, then a promise or threat is implied.

INDICATIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. I am.	1. We are.
2. Thou art.	2. You are.
3. He, she or it is.	3. They are.

Past Tense.

Singular.	*Plural.*
1. I was.	1. We were.
2. Thou wast.	2. You were.
3. He, she or it was.	3. They were.

Future Tense.

Singular.	*Plural.*
1. I shall be.	1. We shall be.
2. Thou wilt be.	2. You will be.
3. He, she or it will be.	3. They will be.

Present-Perfect Tense.

Singular.	*Plural.*
1. I have been.	1. We have been.
2. Thou hast been.	2. You have been.
3. He, she or it has been.	3. They have been.

Past-Perfect Tense.

Singular.	*Plural.*
1. I had been.	1. We had been.
2. Thou hadst been.	2. You had been.
3. He, she or it had been.	3. They had been.

Future-Perfect Tense.

Singular.	*Plural.*
1. I shall have been.	1. We shall have been.
2. Thou wilt have been.	2. You will have been.
3. He, she or it will have been.	3. They will have been.

SUBJUNCTIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. If I be.	1. If he be.
2. If thou be.	2. If you be.
3. If he, she or it be.	3. If they be.

Past Tense.

Singular.	*Plural.*
1. If I were.	1. If we were.
2. If thou wert.	2. If you were.
3. If he, she or it were.	3. If they were.

POTENTIAL MOOD.

Present Tense.

Singular.	*Plural.*
1. I may be.	1. We may be.
2. Thou mayst be.	2. You may be.
3. He, she or it may be.	3. They may be.

Past Tense.

Singular.	*Plural.*
1. I might be.	1. We might be.
2. Thou mightst be.	2. You might be.
3. He, she or it might be.	3. They might be.

Present-Perfect Tense.

Singular.	*Plural.*
1. I may have been.	1. We may have been.
2. Thou mayst have been.	2. You may have been.
3. He, she or it may have been.	3. They may have been.

Past-Perfect Tense.

Singular.	*Plural.*
1. I might have been.	1. We might have been.
2. Thou mightst have been.	2. You might have been.
3. He, she or it might have been.	3. They might have been.

IMPERATIVE MOOD.

Present Tense.

Singular.	*Plural.*
2. Be, *or* be thou.	2. Be, *or* be you.

INFINITIVE MOOD.

Present, To be. *Present-Perfect,* To have been.

PARTICIPLES.

Present, Being. *Past* or *Perfect,* Been.
Compound-Perfect, Having been.

NOTE.—In the Potential mood of *to be,* Present tense, the auxiliaries may be, *may, can or must;* in the Past tense, they may be, *might, could, would* or *should;* in the Present-Perfect tense, *may have, can have* or *must have;* in the Past-Perfect tense, *might have, could have, would have* or *should have.*

(16) Conjugation of the regular, active, transitive verb *To Love:*

NOTE. *She* or *It* may be used in place of *He* in all third persons singular.

(a) ACTIVE VOICE.

INDICATIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. I love.	1. We love.
2. Thou lovest.	2. You love.
3. He loves.	3. They love.

Past Tense.

Singular.	*Plural.*
1. I loved.	1. We loved.
2. Thou lovedst.	2. You loved.
3. He loved.	3. They loved.

Future Tense.

Singular.	*Plural.*
1. I shall love.	1. We shall love.
2. Thou wilt love.	2. You will love.
3. He will love.	3. They will love.

Present-Perfect Tense.

Singular.	*Plural.*
1. I have loved.	1. We have loved.
2. Thou hast loved.	2. You have loved.
3. He has loved.	3. They have loved.

Past-Perfect Tense.

Singular.	*Plural.*
1. I had loved.	1. We had loved.
2. Thou hadst loved.	2. You had loved.
3. He had loved.	3. They had loved.

Future-Perfect Tense.

Singular.	*Plural.*
1. I shall have loved.	1. We shall have loved.
2. Thou wilt have loved.	2. You will have loved.
3. He will have loved.	3. They will have loved.

SUBJUNCTIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. If I love.	1. If we love.
2. If thou love.	2. If you love.
3. If he love.	3. If they love.

Past Tense.

Singular.	*Plural.*
1. If I loved.	1. If we loved.
2. If thou loved.	2. If you loved.
3. If he loved.	3. If they loved.

POTENTIAL MOOD.

Present Tense.

Singular.	*Plural.*
1. I may love.	1. We may love.
2. Thou mayst love.	2. You may love.
3. He may love.	3. They may love.

Past Tense.

Singular.	*Plural.*
1. I might love.	1. We might love.
2. Thou mightst love.	2. You might love.
3. He might love.	3. They might love.

Present-Perfect Tense.

Singular.	*Plural.*
1. I may have loved.	1. We may have loved.
2. Thou mayst have loved.	2. You may have loved.
3. He may have loved.	3. They may have loved.

Past-Perfect Tense.

Singular.	*Plural.*
1. I might have loved.	1. We might have loved.
2. Thou mightst have loved.	2. You might have loved.
3. He might have loved.	3. They might have loved.

IMPERATIVE MOOD.

Present Tense.

Singular.	*Plural.*
Love, *or* love thou.	Love, *or* love you.

INFINITIVE MOOD.

Present, To love. *Present-Perfect,* To have loved.

PARTICIPLES.

Present, Loving. *Past* or *Perfect,* Loved.
Compound-Perfect, Having loved.

(b) PASSIVE VOICE.

The Passive Voice of a verb is formed by placing before its Past Participle the various moods, tenses, numbers and persons of the verb *To be.*

INDICATIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. I am loved.	1. We are loved.
2. Thou art loved.	2. You are loved.
3. He is loved.	3. They are loved.

Past Tense.

Singular.	*Plural.*
1. I was loved.	1. We were loved.
2. Thou wast loved.	2. You were loved.
3. He was loved.	3. They were loved.

Future Tense.

Singular.	*Plural.*
1. I shall be loved.	1. We shall be loved.
2. Thou wilt be loved.	2. You will be loved.
3. He will be loved.	3. They will be loved.

Present-Perfect Tense.

Singular.	*Plural.*
1. I have been loved.	1. We have been loved.
2. Thou hast been loved.	2. You have been loved.
3. He has been loved.	3. They have been loved

Past-Perfect Tense.

Singular.	*Plural.*
1. I had been loved.	1. We had been loved.
2. Thou hadst been loved.	2. You had been loved.
3. He had been loved.	3. They had been loved.

Future-Perfect Tense.

Singular.	*Plural.*
1. I shall have been loved.	1. We shall have been loved.
2. Thou wilt have been loved.	2. You will have been loved.
3. He will have been loved.	3. They will have been loved.

SUBJUNCTIVE MOOD.

Present Tense.

Singular.	*Plural.*
1. If I be loved.	1. If we be loved.
2. If thou be loved.	2. If you be loved.
3. If he be loved.	3. If they be loved.

Past Tense.

Singular.	*Plural.*
1. If I were loved	1. If we were loved.
2. If thou wert loved.	2. If you were loved.
3. If he were loved.	3. If they were loved.

POTENTIAL MOOD.

Present Tense.

Singular.	*Plural.*
1. I may be loved.	1. We may be loved.
2. Thou mayst be loved.	2. You may be loved.
3. He may be loved.	3. They may be loved.

Past Tense.

Singular.	*Plural.*
1. I might be loved.	1. We might be loved.
2. Thou mightst be loved.	2. You might be loved.
3. He might be loved.	3. They might be loved.

Present-Perfect Tense.

Singular.	*Plural.*
1. I may have been loved.	1. We may have been loved.
2. Thou mayst have been loved.	2. You may have been loved.
3. He may have been loved.	3. They may have been loved.

Past-Perfect Tense.

Singular.	*Plural.*
1. I might have been loved.	1. We might have been loved.
2. Thou mightst have been loved.	2. You might have been loved.
3. He might have been loved.	3. They might have been loved.

IMPERATIVE MOOD.

Present Tense.

2. Be loved, *or* be thou loved.	2. Be loved, *or* be you loved.

INFINITIVE MOOD.

Present.	*Present-Perfect.*
To be loved.	To have been loved.

PARTICIPLES.

Present, Being loved. *Past* or *Perfect*, Loved.
Compound-Perfect, Having been loved.

(c) The **Progressive** Form of a verb represents action, as in progress, but not complete, and is made by placing before its present participle the moods, tenses, numbers and persons of the verb *To be*; as, "I am singing." "I was singing." "I shall be singing."

(d) The **Emphatic Form** of verbs is produced by placing the word *Do*, as an auxiliary, before them; as, I *do* love. This use of *Do* is proper only in the present and past tenses of the indicative and subjunctive moods and in the imperative.

VI.—THE ADVERB.

(1) An **Adverb** is a word which goes with a verb, adjective or other adverb, to modify its meaning; as, "He writes *badly*;" "The weather is *very* hot;" "She writes *very* rapidly."

(2) **Comparison**, as with adjectives, may modify **Adverbs**; as, *soon, sooner, soonest*. Adverbs ending in *ly* are compared by prefixing *more* and *most*, *less* and *least*; as, *more* or *less* happily; *most* or *least* happily.

(3) **Adverbs**, so far as their meaning is concerned, are of several kinds or classes:

(a) **Adverbs of Manner or Quality**; as, *Well, ill; slowly, quickly; better, worse.*
(b) **Place**; as, *Here, there; hither, thither.*
(c) **Time**; as, *Now, then; to-day, to-morrow.*
(d) **Quantity**; as, *Much, little, enough.*
(e) **Direction**; as, *Downward, upward, forward.*
(f) **Number and Order**; as, *First, secondly; once, twice; singly, doubly.*
(g) **Affirmation and Denial**; as, *Yes, no; indeed, nowise.*
(h) **Interrogation**; as, *How, why, when, where.*
(i) **Comparison**; as, *More, most; better, best.*
(j) **Uncertainty**; as, *Perhaps, possibly, probably.*

VII.—THE CONJUNCTION.

(1) A **Conjunction** is a word that connects words, sentences, or part of sentences; as, John *and* Jane are happy; Two *and* three are five.

(2) The principal conjunctions are: *After, also, although, and, as, because, both, but, either, for, if, lest, neither, nor, or, since, than, that, then, therefore, though, unless, wherefore whether, yet.*

VIII.—PREPOSITIONS.

(1) A **Preposition** is a word which connects a noun or pronoun with a verb, an adjective, or another noun or pronoun, and shows the relation between the words it connects. "He stood *on* the table." Here the preposition *on* joins the verb *stood* and the noun *table*, and shows the relation between them. "Mary is fond *of* music." Here the preposition *of* joins the adjective *fond* and the noun *music*, and shows the relation between them. "The man *at* the door is waiting." Here the preposition *at* joins the two nouns *man* and *door*, and shows the relation between them.

(2) The noun or pronoun which follows a preposition is in the objective case, and is said to be governed by the preposition.

(3) **Prepositions** are divided into two classes, Simple and Compound.

(a) The **Simple Prepositions** are, *at, after, by, down, for, from, in, of, on, over, past, round, since, through, till, to, under, up, with.*

(b) The **Compound Prepositions** are formed by uniting two words or parts of words. They are: *above, about, across, against, along, amid, amidst, among, amongst, around, athwart, before, behind, below, beneath, beside, besides, between, betwixt, beyond, upon, toward, towards, unto, into, within, without, throughout, underneath.*

IX.—THE INTERJECTION.

Interjections are words which have no meaning in themselves, but which give sudden expression to an emotion of the mind. They are followed by the exclamation mark; as, *Oh! ah! alas!*

(a) Among other exclamations the **Interjections** embrace *adieu, ah, aha, alack, alas, begone, ha, hail, halloo, hark, hist, ho, hum, hush, huzza, lo, O, oh, pshaw, see.*

SYNTAX AND ANALYSIS.

(1) The word **Syntax** is from the Greek, and means *arrangement.* Syntax, in grammar, is that part of it which treats of the construction of sentences; the due arrangement of words in sentences in their necessary relations, according to established usage in language.

(2) **Syntax** is usually divided into two parts, **Concord** and **Government.**

(a) **Concord** means agreement. The chief concords in grammar are those of the verb with its subject; the adjective with the noun; one noun with another; the pronoun with the noun it stands for; the relative pronoun with its antecedent.

(b) **Government** is the influence one word has upon another. The chief kinds of government are those of the transitive verb and the noun; a preposition and a noun.

(3) **Analysis** treats of the separation of a sentence into the parts which compose it.

I.—SYNTAX OF THE NOUN.

1. The Nominative Case.

Rule I.—The **Subject** of a verb must be in the **Nominative Case.**

(a) Thus we say, "I write"; "John writes"; here both *I* and *John* are the subjects of *write,* and are in the nominative case.

(b) The subject of a verb may be (1) a noun; as, *John* writes. (2) A pronoun; as, *He* is good. (3) A verb in the infinitive mood; as, *To sing* is a pleasure. (4) A participle; as, *Reading* promotes knowledge. (5) A sentence or part of a sentence; as, *Thou shalt not kill* is a commandment. All the above are used as nouns.

(c) The usual place of a subject of a verb is before the verb.

(d) In simple address, when a noun or pronoun is not the subject of a verb, it is said to be in the **Nominative Case Independent.**

Rule II.—When one noun is used to explain or describe another, the two nouns are said to be in **Apposition,** and they are always in the same case.

Thus: "So work the honey-*bees, Creatures* that teach the art of order." Here *bees* is the nominative of *work,* and *Creatures,* being in apposition with *bees,* must also be in the nominative case. Nouns in apposition may be, in any case, nominative, possessive or objective.

Rule III.—The verb *to be,* and other verbs of a like nature, take two nominatives, one before, and the other after.

Thus: General Chaffee is a brave soldier. Here *Chaffee* and *soldier* refer to the same person. One is nominative before, the other nominative after *is.* The *is* does nothing but connect them, and is called the *Copula.*

Rule IV.—The verbs *became, be-called, be-named, live, turn-out, prove, remain, seem, look,* and others of appositional meaning, take a nominative case after them as well as before them.

Thus: Tom became an *architect.* Here *Tom* and *architect* designate the same person. One is nominative before, the other nominative after, *became.*

Rule V.—A noun and an adjective, or a noun and a participle, or a noun and adjective phrase, not connected with any other word in a sentence, are put in the **Nominative Absolute.**

Thus: The *wind shifting,* we sailed slowly; *Dinner over,* we went up stairs. Here the words in italics are in the nominative absolute.

2. The Possessive Case.

Rule VI.—A noun or pronoun in the **Possessive Case** depends on the noun signifying the thing possessed.

Thus: John's gun. Here *John's* depends on, or is governed by, *gun,* the thing possessed.

Rule VII.—When two **Possessives** are in apposition, or when several nouns connected by *and* are in the possessive case, the sign of the possessive is affixed to the last only.

Thus: George Washington's farewell address. For thy servant David's sake. Messrs. Miller and Jones' house.

3. The Objective Case.

Rule VIII.—The **Direct Object** of an active-transitive verb is put in the **Objective Case.**

Thus: We met the *man.* We met *him.* I like *to work.*

In the first instance the noun *man* is the objective; in the second, the pronoun *him;* in the third, the infinitive *to work.*

(a) The **Objective Case** is that case of a noun or pronoun governed by a transitive verb or a preposition. A direct object answers to question *Whom?* or *What?*

Rule IX.—Verbs of teaching, asking, making, appointing, etc., take two objectives.

Thus: He teaches *me grammar.* They made *him manager.*

Rule X.—Some Intransitive verbs take an objective, if it is similar to the verb itself.

Thus: To die the *death.* To sleep the *sleep.*

Rule XI.—Limitations of a verb by phrases expressing *space, time, measure,* etc., are in the objective case.

Thus: He walked three *miles.* The stone weighed ten *pounds.*

II.—SYNTAX OF THE ARTICLE.

Rule XII.—An **Article** modifies the noun to which it relates.

Thus: James wrote *a* letter. He opened *the* book. Here *a* is the indefinite article modifying *letter;* and *the* the definite article modifying *book.*

III.—SYNTAX OF THE ADJECTIVE.

Rule XIII.—**An Adjective** modifies the noun or pronoun to which it relates.

Thus: James wrote a *long* letter. Here the adjective *long* modifies or describes the noun *letter*.

(a) Sometimes the noun which the adjective describes or modifies is omitted; as, Of two evils choose the *least;* that is, the *least* evil.

(b) An **Adjective** sometimes modifies a verb in the infinitive mood, or a part of a sentence; as, To play is pleasant. Use of profane language is wicked. Here *pleasant* modifies the infinitive *to play;* and *wicked* modifies the part of the sentence, *Use of profane language*.

(c) An **Adjective** may, especially in poetry, be used as an abstract noun; as, the *True;* the *Good;* the *Beautiful*.

(d) The **Distributive** Adjective pronouns, *each, every, either, neither,* go with singular nouns only; as, *Each* boy got an apple; *Either* book will do.

(e) Of the **Demonstrative** Adjective pronouns, *this* and *that* are singular, *these* and *those* plural.

(f) A **Participle** is a pure adjective and modifies the noun or pronoun to which it relates; as, The boy, *loving* his mother, ran to meet her. Here the participle *loving* relates to the noun boy and modifies it.

IV.—SYNTAX OF THE PRONOUN.

Rule XIV.—A **Pronoun** agrees with the noun or pronoun for which it stands, in Gender, Number and Person.

(a) With **Collective** nouns, when the idea is singular, the pronoun must be in the singular, neuter; as, The class is too large; *it* must be divided. But if the idea be plural, the pronoun must be plural; as, Send the multitude away that *they* may buy bread.

(b) When a pronoun stands for two or more words connected by *and,* it should be in the plural; as, William and James passed by; I saw *them*.

(c) When a pronoun stands for two words connected by *and,* both words expressive of the same subject, it should be in the singular; as, My Lord and Saviour, I love *Him*.

(d) When a pronoun stands for two or more words connected by *or* or *nor,* it should be in the singular; as, Neither play *nor* work is injurious, if *it* is carefully done. But when one of the words connected by *or* or *nor* is plural, then the pronoun should be plural; as, Neither the Captain *nor* Crew knew *their* danger.

(e) When a pronoun stands for two or more words connected by *and,* but of different persons, it agrees with the first person in preference to the second, and with the second in preference to the third; as, John and I had *our* skates with *us*.

(f) A pronoun may stand for an infinitive mood, or part of a sentence, and in such cases should be in the neuter gender, singular number, third person; as, To contradict is rude, but *it* is not criminal. She is very handsome, but unfortunately knows *it*.

(g) The pronoun *it,* in the neuter gender, third person, singular number, is sometimes used indefinitely; as, *It* rains. *It* snows.

(h) *Who* refers to persons; *Which* to the lower animals, inanimate things and sometimes to infants. It formerly applied to persons; as, "Our Father, *which* art in heaven."

(i) *That* is used instead of *Who* or *Which,* after a Superlative; as, It is the best book *that* can be got. It is similarly used after *Same, all, who* used interrogatively, and *it* used indefinitely, when these occur in sentences.

V.—SYNTAX OF THE VERB.

Rule XV.—A **Verb** must agree with its subject in Number and Person.

(a) The Subject answers to the question *Who?* or *What?*

(b) The Subject of a verb is always in the nominative case.

Rule XVI.—Two or more singular nouns connected by *or* or *nor* require a verb in the singular; as, Either Tom or John *is* going.

Rule XVII.—Two or more singular nouns that are subjects, connected by *and,* require their verb in the plural; as, Tom and John *are* going.

Rule XVIII.—Collective nouns implying unity take a singular verb; but when they imply plurality they take a plural verb; as, Parliament *was* dissolved. The Committee *are* divided.

Rule XIX.—The verb *to be* is often attracted to the same number as the nominative that follows it; as, "The wages of sin *is* death."

Rule XX.—A **Transitive** verb in the active voice governs its direct object in the objective case; as, I like *him*. They dislike *her*. John struck *James*.

(a) The Participle, which is an adjective, has the same governing power as a verb; as, *seeing* the rain, I staid at home. Here the participle *seeing* agrees with *I* as an adjective, and governs *rain* as a verb.

(b) The object of the verb may be (1) a noun; as, Jane wrote a *letter*. (2) A pronoun; as, We saw *him*. (3) A verb in the infinitive mood or an infinitive phrase; as, He tried *to win* the prize. Boys love *to play ball*. (4) A participle or participial phrase; as, Boys, stop that *talking*. (5) A sentence or part of a sentence; as, God said, "Let there be light." In all the above instances the objectives are used as nouns.

(c) The place of the object is usually after the verb.

(d) The **Participle** of an active transitive verb requires, in the active voice, an object in the objective case; as, The boy, having eaten unripe *fruit,* became sick.

(e) **A Relative Pronoun**, when in the objective case, is generally placed before the verb it governs; as, The horse *which* you bought is fine. Here *which* is the object of the verb bought (you bought *which*).

VI.—SYNTAX OF THE ADVERB.

Rule XXI.—**Adverbs** modify verbs, adjectives and other adverbs to which they relate; as, James wrote a letter *hastily*. A *thoroughly* bad man.

Rule XXII.—The *Adverb* ought to be placed as near as possible to the word which it modifies. We should not say "He only gave me three dollars;" but, "He gave me only three dollars," because *only* modifies *three*.

(a) **Adverbs** are often used indefinitely and merely to introduce a verb; as, *There* is no truth in you.

(b) **Adverbs** like *yea, yes, nay, no, amen,* etc., do not modify any verb.

(c) **Adverbs** should not be used as modifiers, where adjectives are proper; as, The flowers looked *pretty,* not *prettily*.

(d) A double use of negatives is improper; as, "I *cannot* by *no* means allow it," should read "I *can* by *no* means allow it."

(e) **Adverbs** are sometimes preceded by prepositions; as, *At once, for ever.* The form is still an adverb or adverbial phrase.

VII.—SYNTAX OF THE PREPOSITION.

Rule XXIII.—All **Prepositions** in the English language govern the Objective Case; as, "James wrote a letter *to* his father." Here *to* is a preposition, showing the relation between *wrote* and *father*, and governs father in the objective case.

(a) **Prepositions** are often followed by an adjective without the noun objective. In such cases it must be supplied in parsing; as, "Keep to the right" means "Keep to the right side."

(b) **Prepositions** are often omitted after certain classes of verbs, adjectives and nouns; as, "Give me a book" equals "Give *to* me a book" "Get me an apple" means "Get *for* me an apple."

(c) Double **Prepositions** should be regarded as one; as, "*From before* the altar."

VIII.—SYNTAX OF THE CONJUNCTION.

Rule XXIV.—A **Conjunction** connects the Words, Sentences, Phrases and Clauses between which it stands.

(a) The words connected by conjunctions must be of the same class; that is, nouns with nouns, pronouns with pronouns, adjectives with adjectives, verbs with verbs, adverbs with adverbs, etc.; as, "James *and* John are brothers." "We saw him *and* her."

(b) In connecting words and clauses by means of two conjunctions, the conjunctions must correspond to each other; as, "It is *neither* hot *nor* cold."

(c) It is plain that the Conjunction *and* must make two singulars equal to a plural; as, "He *and* I *are* of the same age."

(d) When corresponding Conjunctions are used, let it be remembered that *so* and *as* require an *as* after them; *though* requires *yet; whether, or; either, or; neither, nor; nor, nor; or, or.* Example:

"*Though* deep, *yet* clear; *though* gentle, *yet* not dull."

(e) Certain adjectives also require special Conjunctions after them. *Such* (adj.) requires *as* after it; *both* (adj.) requires *and;* as, "Would I describe a preacher *such as* Paul."

(f) The Conjunction *that* is often omitted; as, "Yet Brutus says he was ambitious!" Here *that* is omitted before *he.*

IX.—SYNTAX OF THE INTERJECTION.

Rule XXV.—An **Interjection** has no dependence on any other word. In parsing, all that is necessary is to tell what part of speech it is.

X.—ANALYSIS.

Analysis is the process of taking a sentence to pieces, and accounting for each piece.

(1) A **Sentence** is a number of words put together so as to make complete sense; as, "The horse gallops." "Man is mortal."

A sentence may consist of a single word; as, "Strike"; "Depart."

(2) Every sentence must consist of at least two parts. These two parts are the thing we speak about and what we say of the thing.

(a) The **Subject** is what we speak about. "*Jane* loves." Here *Jane* is the *Subject.*

(b) The **Predicate** is what we say of the subject. "Jane *loves.*" Here *loves* is the *Predicate.*

(c) Sometimes the **Subject** is not expressed, but is understood; as, "*Go!*" equal to "*Go you!*"

(d) The **Grammatical Subject** is simply the noun or pronoun which is the subject of the sentence; as, "*Man* lives." *Man* is the Grammatical subject.

(e) The **Logical Subject** includes all the attendant words which serve to modify the subject; as, "The good old *man* still lives." Here *The good old man* is the Logical subject.

(3) A **Simple Subject** is a single noun or pronoun, the subject of a verb, with no modifying word or words; as, "*William* plowed the field." "*He* wrote a letter."

(4) A **Complex Subject** is one in which the noun or pronoun which is the subject of the verb is accompanied by some modifying word or words; as, "*The bad boy, afraid of a whipping,* staid away from school." Here all the words in italics limit or modify the subject *boy*, and make it **Complex.**

(5) The single words, phrases and clauses which make a subject complex are called **Adjuncts** of the subject.

(6) The ways in which **Adjuncts** modify the subject are as follows:

(a) By an article; as, "*The* boy ran away"

(b) By an adjective; as, "*Great* men are few."

(c) By a noun or pronoun in apposition; as, "George Washington, *President,* is dead." "Jane *herself* came home."

(d) By a noun or pronoun in the possessive case; as, "*John's* coat is warm."

(e) By a participle; as, "Men *fighting* are a sad sight."

(f) By a verb in the infinitive mood; as, "The time *to study* is now here."

(g) By a prepositional phrase; as, "The opportunity *of the hour* should not be lost."

(h) By a participial phrase; as, "The wind, *blowing a hurricane,* did much damage."

(i) By a clause; as, "The hope *that he might be pardoned* sustained him."

(j) Nouns, adjectives, adverbs, participles and infinitives which go to form **Adjuncts** may themselves be modified by other adjuncts.

(7) **Compound Subjects** are those which consist of two or more subjects, simple or complex, connected by one or more conjunctions; as, "Men and women are human beings." Here are really two sentences, "Men are human beings." "Women are human beings."

(8) **Of the Predicate.**—Predicates, like Subjects, are Grammatical and Logical.

(a) The **Grammatical Predicate** is simply the finite verb to which the noun or pronoun forming the grammatical subject is nominative; as, "The boy *runs.*" Runs is the **Grammatical Predicate.**

(b) The **Logical Predicate** is the verb of which the noun or pronoun is the subject, together with all the words which may modify the verb as, "John *has finally* *reached home in safety.*" Here the words in italics modify *has reached*, and constitute the **Logical Predicate.**

(c) The **Simple Predicate** is a single finite verb having a noun or pronoun for its subject; as, "The water *has frozen*."

(d) A **Complex Predicate** is one in which the meaning of the verb is modified by some accompanying word or words; as, "Men *will strive to be as rich as they can*." Here the predicate *will strive* is rendered complex by the accompanying words in italics.

(e) **Predicates**, like **Subjects**, are rendered complex by three kinds of adjuncts, Single Words, Phrases and Clauses; as, "John *walks slowly*." "John *walked to his home in great haste*." "John walked to his home *which was in the valley*."

(f) The **Adjuncts** which modify Predicates may themselves be modified by other adjuncts.

(g) A **Compound Predicate** consists of two or more predicates, simple or complex, united by one or more conjunctions; as, "John *loves and reverences God*"; that is, John *loves God*, John *reverences God*."

XI.—ANALYSIS OF SENTENCES.

(1) A **Simple Sentence** is a sentence which consists of one subject and one predicate. Both the subject and predicate may be accompanied by modifying words or phrases, and yet the sentence remain simple. "John struck James." "John in a fit of anger struck James a hard blow." Both of these are simple sentences.

(2) But when a **Clause** modifies the subject or predicate, the sentence is no longer simple, but **Complex**; as, "A life *which is spent in doing good* cannot be a failure." Here the words in italics constitute a **Clause**, and render the sentence complex.

(3) When two or more sentences are connected by a conjunction they constitute a **Compound Sentence**; as, "John went into the woods, and shot two squirrels." Here John is the subject of both *went* and *shot*.

(4) As to their form or use, sentences are of three kinds: **Assertive** or **Declarative**, **Interrogative** and **Imperative**.

(a) An **Assertive** or **Declarative Sentence** simply asserts or denies; as, "The night grows cold." "I am not going."

(b) An **Interrogative Sentence** asks a question; as, "Whom do you seek?"

(c) An **Imperative Sentence** always contains a verb in the imperative mood; as, "Look to your manners." In imperative sentences the subject is usually omitted, as in the above example.

(5) A **Phrase** is a series of words connected in meaning, but without a predicate, and not making complete sense by themselves; as, "December, *the month of snows*, has come." "The reason *for his failure* was recklessness." "*The King being dead*, his son succeeded."

(6) A **Clause** of a sentence contains a verb and its subject, making complete sense; yet it is not independent, being used to modify some other part or parts of a sentence of which it is a part; as, "The boy *who is studious* will learn." "He staid at home *until it ceased raining*."

(7) The parts of a sentence united by a conjunction to form a compound sentence are called the **Members** of the sentence; as, "The sun had risen, and the grass was scorched." Here are two **Members** united to form a compound sentence.

PROSODY.

Prosody is that part of grammar which deals with the laws and nature of verse.

(1) English verse is made up of lines; each line of verse contains a fixed number of accents; each accent has a fixed number of unaccented syllables attached to it.

Who loves′ | not more′ | the night′ | of June′
Than dull′ | Decem′ |ber's gloom′ | of noon′?

(2) One accented syllable with one or two unaccented, taken together, is called a foot. A foot is the unit of metre.

(3) An **Iambus** is one accented syllable preceded by one unaccented; as, *Perhaps′; compel′; career′.*

(4) A **Trochee** is one accented syllable followed by one unaccented; as, *Gent′le; la′dy; ra′ven.*

(5) An **Anapest** is one accented syllable preceded by two unaccented; as, *Serenade′; disappear′.*

(6) A **Dactyl** is one accented syllable followed by two unaccented; as, *Hap′pily; mer′rily.*

(7) An **Amphibrach** is an accented syllable with one unaccented on each side of it; as, *Despair′ing; almight′y.*

(8) A verse made up of iambuses is called **Iambic Verse**; of trochees, **Trochaic**; of anapests, **Anapestic**; of dactyls, **Dactylic.**

(9) A verse of three feet is called **Trimeter**; of four feet, **Tetrameter**; of five feet, **Pentameter**; of six feet, **Hexameter.**

(10) Rhymed Iambic Pentameter is called **Heroic** verse; when unrhymed it is called **Blank** verse.

(11) **Iambic Trimeter** consists of three iambuses.

The king′ | was on′ | his throne′;
His sa′ | traps thronged′ | the hall′.

(12) **Iambic Tetrameter** consists of four iambuses.

The fire′ | with well′ | dried logs′ | supplied′.

(13) **Iambic Pentameter** consists of five iambuses.

True wit′ | is na′ | ture to′ | advan′ | tage dressed′.

(14) **Iambic Hexameter** consists of six iambuses.

Upon′ | the mid′ | lands now′ | the indus′ | trious
muse′ | doth fall′.

(15) The above pretends to be hexameter, but it is really two trimeter verses printed in one long line, and is very monotonous.

(16) **Trochaic Tetrameter** consists of four trochees.

When′ the | heath′ en | trump′ et | 's clang.

(17) **Trochaic Octometer** consists of eight trochees.

Com' rades | leave' me | here' a | lit' tle, | while' as |
yet' 'tis | ear' ly | morn'.

(18) **Anapestic Tetrameter** consists of four anapests.

And the clan' | has a name' | that is name' | less by
day'.

(19) **Dactylic Dimeter** consists of two dactyls.

Can' non to | right' of them,
Can' non to | left' of them.

(20) **Dactylic Tetrameter** consists of four dactyls.

High' est and | best'are the | sons' of the | morn' ing.

Here the last foot is a trochee, which is allowable.

(21) **Amphibrachic Tetrameter** consists of four amphibrachs.

There came' to | the breach' a | poor ex' ile | of E' rin.

(22) A verse with a syllable over and above the number of feet of which it consists is called **Hypermetrical.**

Day af | ter day, | day af | ter day
We struck ; | nor breath | nor mo | tion, (*hyper.*)
As i | dle as | a paint | ed ship |
Upon | a paint | ed o | cean. (*hyper.*)

(23) A verse with a syllable wanting to the number of feet of which it consists is said to be **Defective.**

Slaug' tered | down' by | heath' en | blade. (*defective.*)

(24) **Rhyme** is a correspondence in sound at the ends of lines of poetry. Rhyme, to be good, must satisfy four conditions. These are:

(a) The rhyming syllable must be accented. Thus *ring* rhymes with *sing;* but not with *think'ing.*

(b) The vowel must be the same, to the ear, at least, though not necessarily to the eye. Thus *lose* and *close* are good rhymes.

(c) The final consonant must be the same; as, *clang, rang.* But *mix* rhymes with *tricks,* because $x = ks$.

(d) The preceding consonant must be different; as, *Beat, feet; jump, pump.*

(25) The **Rhythm,** or musical flow of verse, depends on the varied succession of phrases of different lengths, but most of all upon the **Caesura,** which is the rest, halt, break or pause in a line for the voice in reading aloud. It is found in both short and long lines.

More pleased that || in a barbarous age
He gave rude Scotland || Virgil's page.
Now, Lycidas, || the shepherds weep no more;
Henceforth || thou art the genius of the shore.

(26) The Stanza is a group of rhymed lines.

(a) A **Couplet** is a stanza of two rhymed lines.

(b) A **Triplet** is a stanza of three rhymed lines.

(c) A **Quartrain** is a stanza of four rhymed lines, of which the first (sometimes) rhymes with the third, and the second always with the fourth.

(d) A **Sextant** is a stanza of six lines, with the second, fourth and sixth lines rhyming. But the arrangement of rhyming lines may vary.

(e) An **Octave,** or **Ottava,** is a stanza of eight lines, with a varying arrangement of rhyming lines.

(f) The **Spenserian** stanza, so called because Spenser first used it in his "Faerie Queen," is a stanza of nine lines.

(g) A **Sonnet** is a short poem of fourteen lines, with the rhymes arranged in a peculiar way. The first eight lines of a sonnet are called its *octave,* and the last six, its *sestette.*

WORD-BUILDING.

(1) A favorite way of word-building, or word formation, is by compounding, as, bridal = bride-ale; blackbird; washtub; welfare; purse-proud; everlasting; backbite; always. Observe, this is different from the process of derivation, which extracts a word from the root of another, or builds on its own root.

(2) Words are also built by using prefixes. Prefixes are of English, French, Latin or Greek origin, and of various significance. Some are separable, some inseparable. Among the English prefixes are a-bed; be-daub; for-bid; gain-say; with-stand; in-come; over-throw. Among Latin prefixes are ar-rive; ante-date; bi-sect; circum-ference; contra-dict; ex-alt; il-legal; inter-cede; mis-chief; per-fect; pro-noun; sub-tract; trans-late. Among the Greek prefixes are an-archy; anti-dote; arch-bishop; auto-crat; dia-meter; epi-taph; meta-phor; mono-gram; pan-theist; syn-tax.

(3) Words are also built by using suffixes. Among favorite English suffixes are drunk-ard; witch-craft; after-math; child-hood; dar-ling; fellow-ship; wheel-wright; stead-fast; thir-teen; home-ward; like-wise. Some suffixes of Latin origin are cour-age; abund-ance; cur-ate; cist-ern; art-icle; docu-ment; act-or; testa-trix; alti-tude; ami-able; corpu-lent; nour-ish. Among the leading Greek suffixes are aromat-ic; analy-sis; dog-ma; me-tre; bapt-ize; aster-isk.

ENGLISH COMPOSITION

PART I. LANGUAGE.

LESSON 1.

1. **Language** is the means of expressing thought by words; it is both oral and written.

2. **Oral Language** expresses thought by combinations of sounds, called words.

3. **Written Language** expresses thought by means of combination of characters or letters that stand for words.

LESSON 2.

THE SENTENCES.

4. **A Sentence** is a thought expressed in words, either spoken or written.

5. A sentence in its simplest form is the statement of a single fact, thus: *Dogs bark. The man walks.* Each of these sentences contains two parts.

6. Say something about the wind. *The wind blows.*

7. Make a statement about *The wind blows.*

8. Express a thought about the wind. *The wind blows.*

9. Make a sentence about the wind. *The wind blows.*

10. In the sentence, *The wind blows*, wind is the *subject*, because it is the thing about which something has been said.

11. Say something about a thing that blows. *The wind blows.*

12. Make a statement about something that blows. *The wind blows.*

13. Express a *thought* about something that blows. *The wind blows.*

14. Make a *sentence* about something that blows. *The wind blows.*

15. In the sentence, "The wind blows," *blows* is the *predicate*, because it is that which is said of the subject.

16. *Every sentence contains a thought.*

17. *Every sentence must have a subject and a predicate.*

18. *The subject is that which something is said about.*

19. *The predicate is that which says something about the subject.*

LESSON 3.

THE SENTENCE.

20. **A simple statement** is called a *proposition.*

21. **Every proposition** contains a subject and a predicate.

22. **A** sentence may consist of a single *proposition* or a *combination of propositions.* Thus: *The wind blew.* This is a simple proposition. *The wind blew and the rain fell.* This sentence is a combination of two propositions.

23. **A clause** is one of two or more united propositions. As, *When the signal was given, the gate was opened and the horses rushed across the field.* This sentence is composed of three clauses: (1) When the signal was given, (2) the gate was opened, (3) the horses rushed across the field.

The subject of the first clause is *signal*, the predicate *rushed.*

A phrase is a combination of words; but, unlike the clause, it has no subject or predicate; as, *In the spring; on the hill; between the rocks.*

In the third clause above, The horses rushed *across the field* is a phrase.

LESSON 4.

THE SENTENCE—NOUN AND VERB.

24. **A noun** is a word used as a name of some object or quality; as, Charles, cow, chair, goodness. A *noun* is a *part of speech.*

25. **The subject** of a sentence or a clause always contains a noun or something used as a noun. It is that about which something is said.

26. **A verb** is a word that denotes some action, state or being; as, walk, ride, is living. *A verb* is a part of speech.

27. **The predicate** of a sentence or of a clause always contains a verb. It is that which says something about the subject.

28. In the sentence, "The black dog ran swiftly," *dog* is a noun and is the subject; *ran* is the verb and is the predicate.

LESSON 5.

THE PRINCIPAL ELEMENTS OF A SENTENCE.

29. **The principal elements** of a sentence or a clause are the subject and predicate. Hence the principal elements of a sentence or a clause are nouns and verbs.

30. **The subject** is *simple* when the affirmation made by the predicate is concerning only one thing; as, *Snow* melts.

31. **The subject** is *compound* when the affirmation is made concerning more than one thing; as, *Snow* and *Ice* melt.

32. **The predicate** of a proposition or clause is either *simple* or *compound.*

33. The predicate is *simple* when but one affirmation is made; as, The lambs *run.*

34. The predicate is *compound* when more than one affirmation is made; as, The lambs *run* and *skip.*

35. The subject and predicate may both be compound; as, *Boys* and *girls work* and *play.*

LESSON 6.

MODIFYING ELEMENTS.

36. The modifying elements are adjective elements, adverbial elements, objective elements, connective elements and independent elements.

37. **Adjective Elements.**—Words that modify a noun or anything that is used instead of a noun are called *adjectives;* as, *the black* dog; the *swift* horse; *five* cows. *The, black, swift* and *five* are adjectives. An adjective is a part of speech. Adjectives are called *adjective elements. Phrases* and *clauses*, used like adjectives, are called adjective elements; as, "Star of *the summer night.*" *Of the summer night* is a phrase. It is used like an adjective to modify *star.* Hence it is an adjective element. "The star *that set too early.*" *That set too early* is a clause used like an adjective to modify *star.* Hence it is an adjective element.

38. **Adverbial Elements.**—A word used to modify a verb or an adjective is called an *adverb.* "The horse ran *swiftly.*" *Swiftly* modifies the verb *ran.* Hence it is an adverb.

(a) "A *very* tall man passed by." *Very* modifies the adjective *tall.* Hence it is an adverb.

(b) **Words** that *modify adverbs* are called adverbs; as, "The horse ran *very* swiftly." Very modifies the adverb *swiftly.* Hence it is an adverb. The *adverb* is a *part* of *speech.*

(c) **Adverbs and phrases and clauses** used like adverbs are called **adverbial elements;** as, "He walks *in the dark.*" *In the dark* is a phrase modifying the verb walks. Hence it is used like an adverb and is an adverbial element.

"The dog barks *when he sees a tramp.*" The clause *when he sees a tramp* modifies the verb *barks*, like an adverb. Hence it is an adverbial element.

39. **Connective Elements.**—Words that connect other words are called *conjunctions;* as, "Dogs *and* cats are animals." The word *and* connects the word *dogs* with *cats.*

40. **Conjunctive Adverbs.**—Some adverbs perform the double office of modifying some word and connecting two clauses; as, "He saw the boat *when* it passed under the bridge." *When* connects the principal clause, *He saw the boat*, and the subordinate clause, *it passed under the bridge.* It also modifies the verb *passed. When* is a conjunctive adverb.

41. **Prepositions.**—Words that join other words and show relation between them are called prepositions. The preposition is a *part* of *speech;* as, "The boy sat on his sled." The word *on* connects the words *sat* and *sled* and shows the relation between them. It forms with *sled* the adverbial phrase *on his sled.*

42. **Objective Elements.**—Words used to complete the meaning of verbs and prepositions are called **objects.** Hence objective elements; as, "The dog bit the boy." The word *boy* completes the meaning of the verb *bit* and is said to be the object of the verb *bit.* "The boy sat on his sled." The word *sled* completes the meaning of *on* and is said to be the object of the preposition *on.*

The *objects* of *verbs* and *prepositions* are called *objective elements.*

43. **Independent Elements.**—Words used to express some strong or sudden emotion are called interjections; as, "*Ah!* that is the trouble." The *interjection* is a part of speech.

Nouns and words, used independently, and interjections are called independent elements; as, "*Friend*, you are unwise.

Phrases and clauses, used like interjections, are independent elements; as, "*Of all things*, I never said so." "Oh! that we were wise."

44. **Attributive Elements.**—Words, phrases and clauses used in the predicate, but relating to the subject, are called attributes; as, "The boy is *good.*" "He is *of strong mind.*" "My judgment is *that you will succeed.*"

45. **The Copula.**—The verb *be* and its forms, *am, is, was, are, were, been*, etc., are usually used to connect the subject to its attribute; as, "John *is* good." "He *was* a *strong man.*" *Is* connects John with its attribute good. *Was* connects *he* with its attribute man.

LESSON 8.

CLASSIFICATION OF SENTENCES.

46. **Sentences** are divided, with respect to use, into four classes: declarative, interrogative, imperative and exclamatory.

47. A **declarative** sentence is used to affirm or to deny; as, "Birds fly."

48. An **interrogative** sentence is used to ask a question; as, "What is the matter?"

49. An **imperative** sentence is used to express a command, entreaty or request; as, "Lend me your book."

50. An **exclamatory** sentence is used in exclamation or to express strong emotion; as, "Alas! I shall perish."

51. Sentences are divided, with respect to form, into three classes: simple, complex and compound.

52. A **simple sentence** consists of but one proposition; as, "Stars shine." "Who comes here?" "Move slowly."

53. **Propositions** are either principal or subordinate, and are usually called clauses.

54. A **principal clause** is one which makes complete sense when standing alone.

55. A **subordinate clause** is one which must be connected with another clause to make complete sense; as, "The man that does no good does harm."

Note.—In this sentence, "The man does harm" is the principal proposition, for it makes complete sense when standing alone. "That does no good" is the subordinate proposition, for it does not make complete sense unless connected with the other proposition. It modifies man.

56. A **complex sentence** consists of a principal clause, with either itself, or some part of itself, modified by a subordinate clause, used as an element;

as, "Leaves fall *when* autumn comes." He who is diligent will win the race." "I hear that you have bought a fine residence."

57. **A compound sentence** consists of two or more propositions joined by coördinate connectives; as, "Summer comes and fruit ripens." "I go, but I return."

NOTES.—I. Propositions or clauses composing compound sentences are called members.

II. The propositions composing compound or complex sentences may themselves be compound or complex.

III. Relative pronouns, subordinate conjunctions and conjunctive adverbs are used to connect the dependent clauses of complex sentences to the principal clause, and to each other when they themselves are complex.

IV. Sometimes the connectives are omitted; as, "Talent is power, tact is skill."

58. **A prepositional phrase** is one which is introduced by a preposition; as, "Of a truth." It is frequently called an adjunct.

59. **A complex phrase** is one that contains a phrase or a clause, as a modifying adjunct of its principal part; as, "In the varieties *of life.*" *Of life* is an adjunct or phrase modifying varieties.

60. **A compound phrase** is one composed of two or more coördinate phrases; as, "Stooping down and looking in." "Over the bridge and around the bridge."

61. **An infinitive phrase** is one, the principal part of which is a verb, and is usually preceded by *to;* as, "To do good." The participle is a form of the verb, used like an adjective; as, "The knife *taken* from the table was Jackson's." *Taken* modifies knife like an adjective and is made from the verb take.

62. **A Participial phrase** is one, the principal part of which is a participle; as, "A measure *founded* on justice."

NOTE.—A phrase may be used as a subject, object or attribute, or it may be an adverbial or an adjective modifier, or it may be independent.

"*To achieve success* was his aim," phrase used as subject. "I like *to study arithmetic*," phrase used as object. "To miss the concert was *to lose a great pleasure*," phrase used as attribute. "Imagine a palace *of ivory and pearl*," phrase used as adjective modifier. "The old soldiers fought *with bravery*," phrase used as adverbial modifier. "*To speak plainly*, he is your best friend," independent phrase.

LESSON 9.

ANALYSIS OF SENTENCES.

63. The analysis of a sentence is the separation of it into its parts or elements.

EXAMPLE 1.—Grant met Lee.

Explanation.—This is a sentence; declarative, simple (why?). Grant is the subject; met is the predicate verb and is modified by Lee, an objective element.

64. EXAMPLE 2.—What did you see?

This is a sentence; interrogative, simple (why?). You is the subject; did see is the predicate verb (why?). The predicate verb is modified by what, an objective element.

65. EXAMPLE 3.—Bring me water.

This is a sentence; imperative (why?). Thou or you understood is the subject; bring is the predicate verb (why?). The predicate verb is modified by water, a direct objective element, and by me, an indirect objective element.

66. EXAMPLE 4.—They have chosen John clerk.

This is a sentence; declarative, simple (why?). They is the subject; have chosen is the predicate verb (why?). The predicate verb is modified by John, an objective element, and John is modified by clerk, an adjective element denoting office.

67. EXAMPLE 5.—The boat glides smoothly.

This is a sentence; declarative, simple (why?). Boat is the subject nominative; glides is the predicate verb. The subject nominative is modified by the, an adjective element; the predicate verb is modified by smoothly, an adverbial element.

68. EXAMPLE 6.—William is strictly honest.

This is a sentence; declarative, simple (why?). William is the subject; *is* is the predicate verb (or copula); honest is the attribute (why?). The attribute is modified by strictly, an adverbial element.

69. EXAMPLE 7.—Large rocks are plenty.

This is a sentence; declarative, simple. Rocks is the subject nominative; are plenty is the predicate verb (why?). The subject nominative is modified by large, an adjective element. Are is the copula (why?) Plenty is the attribute.

70. EXAMPLE 8.—The dog broke the boy's arm.

Dog is the subject nominative, modified by the, an adjective element. Broke, the predicate verb, is modified by arm, an objective element. Arm is modified by boy's, an adjective element. Boy's arm is modified by the, an adjective element. (Some may regard *the* as a modifier of arm.)

I. **Compound Subjects.**—1. *He* and *I* went to London.

II. **Compound Predicates.**—1. The bank clerk *wrote* the draft and *handed* it to the cashier for signature.

III. **Compound Objective Elements.**—1. He had a good *mind*, a sound *judgment* and a lively *imagination.*

IV. **Compound Adjective Elements.**—1. He was a good, faithful and *generous* man.

V. **Compound Adverbial Elements.**—1. "Man is *fearfully* and *wonderfully* made."

The following are the principal rules for the use of capital letters:

71. Begin with a capital—

The first word of every *sentence.*

The first word of every *line of poetry.*

The first word of a *quotation, maxim* or *question* introduced in the direct form; as, Emerson says "*Trust* thyself."

The first word of each *statement in a series*, when formally enumerated; as, The essay will be marked on the following things: 1. *Thought;* 2. *Composition;* 3. *Conciseness;* 4. *Neatness.*

72. Also begin with capitals proper nouns or words directly derived from proper nouns; as, Emerson, Cape of Good Hope, Monroe Doctrine.

73. **Names applied to Deity,** and usually pronouns referring to God; as, Jehovah—The Eternal Goodness.

74. **Names of months, days of the week and holidays;** as, January, Sunday.

75. **Every important word in the title of a book,** essay, poem, etc.; as, The Forest Hymn.

76. The name of an important event in history or of an epoch of time; as, The Rebellion; The War of the Roses.

77. **Titles of office or honor** when applied to particular persons or used in connection with proper names; as, Lord Byron, Chief Justice Marshall, Uncle John.

78. The **name of a religious sect or a political party;** as, Methodists, The Tories.

79. **Common nouns,** strongly personified; as, O Life! how pleasant is thy morning.

80. Any **point of the compass** when it denotes a section of country; as, They went from the East to the South.

The words *I* and *O* should always be capitals.

PART II. SYNTAX.

Many of the laws of Syntax have been illustrated, but a more general treatment will now follow.

1. A sentence is a thought expressed in words, and it may be oral or written.

2. A thought may be expressed as a statement, a question, a command or an exclamation.

In whatever form the sentence is expressed, it must contain a subject and a predicate; yet either the subject or the predicate may be understood.

SIMPLE SENTENCE.

3. **A simple sentence** contains but one *subject* and one *predicate.*

4. The **subject** of a sentence is the word or words that name the thing about which an assertion is made.

5. The **predicate** of a sentence is the word or words that assert something about the subject.

6. The **simple sentence** may have for its subject simply a noun or an equivalent, and for its predicate a finite verb.

7. Both **subject** and **predicate** of a simple sentence may be modified to any degree, provided that no modifying element is a clause. Thus: Early in the morning of a beautiful spring day the rising sun, breaking through the dark foliage, fell beautifully upon the green lawn sloping gently to the south.

8. The modifying elements of the simple sentence are words and phrases.

COMPLEX SENTENCE.

9. The **complex** sentence differs from the simple sentence in that it has one or more clauses used as modifying elements. Thus: When the spring comes the birds sing. *The birds sing* is the principal thought and makes complete sense when standing alone. It, therefore, is the principal or independent clause.

When the spring comes does not make complete sense when standing alone, and therefore is called the subordinate clause.

10. A **complex** sentence must contain a principal clause and one or more subordinate clauses, used as modifying elements or as a substantive.

CLASSIFICATION OF CLAUSES.

11. **The adjective clause** is a clause used like an adjective. The following sentences compare the use of *adjective clauses* to the use of adjectives.

SIMPLE SENTENCES WITH ADJECTIVES OR ADJECTIVE PHRASES.

A friend *in need* is a friend indeed.
A *sleepy* dog never barks.
An *honest* man is a good citizen.

COMPLEX SENTENCES WITH ADJECTIVE CLAUSES.

A friend *who helps in time of need* is a friend indeed.
The dog *that sleeps* never barks.
The man *who is honest* is a good citizen.

Most adjective clauses are *relative clauses;* that is, clauses introduced either by relative pronouns or by relative adverbs of place or time:

The squirrel *which the boy had tamed* escaped.
The dog *that worried the cat* lived in Jack's house.
The place *where man died for man* is holy ground.
The time *when this happens* will be a day of sorrow.

12. The noun modified by a clause introduced by a relative pronoun is always the *antecedent* of the pronoun.

ADVERBIAL CLAUSES.

13. The following sentences will illustrate the use of the adverb or adverbial phrase and the adverbial clause.

SIMPLE SENTENCES WITH ADVERBS OR ADVERBIAL PHRASES.

He started *at sunrise.*
In his boyhood he was truthful.

COMPLEX SENTENCES WITH ADVERBIAL CLAUSES.

He started *when the sun had risen.*
When he was a boy he was truthful.

14. **Subordinate clauses** *used as adverbial modifiers are called* adverbial clauses.

15. **Adverbial clauses** may be introduced by adverbs of place, time or manner; as, *where, whether, whence, while, when, after, before, how, as, until.*

16. **Adverbial clauses** are often introduced by the subordinate conjunctions *although, because, though, if, that, in order that, so that.*

17. **Adverbial clauses** may modify verbs, adjectives and adverbs.

NOUN CLAUSES.

18. **Subordinate clauses** may be used as a noun or substantive.

Compare the two sentences:
Success is certain.
That we shall succeed is certain.

The two sentences express the same thing. In the first sentence the noun *success* is the subject.

In the second the clause *that we shall succeed* is used instead of the noun *success*. This clause is now the subject of the sentence.

19. The following sentences will illustrate the use of the noun clause:

How he succeeds is still a mystery. (Noun clause as subject.)

Tell me *what* you intend to do. (Noun clause as object of the verb *tell.*)

I am sincere in *what I profess*. (Noun clause as object of the preposition *in.*)

Dreams are not *what they seem*. (Noun clause as predicate of the subject *dreams.*)

The belief, *that the boy was dead*, prevailed. (Noun clause in apposition with *belief.*)

20. There are three kinds of clauses, the **noun clause**, the **adjective clause** and the **adverbial clause**.

21. The **complex sentence** always contains a principal clause and one or more subordinate clauses.

COMPOUND SENTENCE.

22. The **compound sentence** must have at least two principal statements which, when standing alone, would make complete simple sentences. Thus:

The wind blew and *the rain fell*.

Either of the two clauses, *The wind blew* or *the rain fell*, would make complete sense when standing alone.

23. Such clauses are called coördinate clauses and are connected by coördinate conjunctions, either expressed or understood.

24. The parts of compound sentences connected by coördinate conjunctions are called members.

25. The members of a compound sentence may be all like simple sentences, all like complex sentences or part like simple and part like complex sentences. Thus:

We are born into life—it is sweet, it is strange!

We lie on the knee of a wild mystery, which smiles with a change.

26. The simple or grammatical subject of a sentence, either simple, complex or compound, is a noun or an equivalent, unmodified. As subject of a sentence there are several equivalents for the noun; as,

The *car* has arrived. *Car* is a noun.

We are going. *We* is a pronoun.

Some are honest. *Some* is an adjective.

To labor is worthy. *To labor* is an infinitive phrase.

That he was kind is admitted. *That he was kind* is a clause.

27. To parse a noun, state class, person, number, gender, case and reason for case.

28. A noun or pronoun used as the subject of a finite verb is in the *nominative* case.

29. In parsing an adjective, a phrase or a clause used as a subject, simply state that it is used as a noun and is the subject.

30. The subject may be modified in various ways; as,

The *wild* waves beat upon the shore. (Adjective.)

The hum *of bees* was heard. (Prepositional phrase.)

Henry's father came home. (Noun in the possessive case.)

My ball is lost. (Pronoun in possessive case.)

Longfellow, *the author*, wrote poems. (Noun in apposition.)

A desire *to know* brings knowledge. (Verb in the infinitive mood.)

Broken are the ties *that bound us*. (Clause.)

The *barking* dog never bites. (Participle.)

31. All words, phrases or clauses used to modify the subject of a sentence have the force of adjectives.

THE PREDICATE.

31. The verb is the part of speech used in making an assertion, and so must be contained in the predicate of a sentence.

32. The **predicate** of a simple sentence may be:

A verb; as, The bee *works*.

A verb and its complement; as, The boys *love him*.

33. The **complement** of a verb is that which completes its meaning.

34. Verbs of incomplete predication require a complement.

35. The complement of a transitive verb may be:

a. The man may reach *home*. *Home* is a noun.

b. The boys love *him*. *Him* is a pronoun.

c. He loves *walking on the green*. *Walking on the green* is a phrase.

d. He sees *where you have gone*. *Where you have gone* is a clause.

36. The complement of an **intransitive verb** may be:

a. That man is *governor*. *Governor* is a noun.

b. It was *she*. *She* is a pronoun.

c. The crystal spar is *brilliant*. *Brilliant* is an adjective.

d. The room seems *to gather dampness*. *To gather dampness* is a phrase.

e. The hat seems *what I want*. *What I want* is a clause.

f. I am *here*. *Here* is an adverb.

37. The **predicate** of a sentence may be modified by:

An adverb; The rain fell *slowly*.

An adverbial phrase; The rain fell *on the roof*. He tried *to win*.

A clause; Walk *where the road is dry*. The boy studies *that he may succeed*.

38. It must be kept in mind that the sentence has two distinct parts: The subject element and the predicate element.

39. It will be observed that the modifiers of the subject elements are of the nature of adjectives, and are called adjective elements; while those of the predicate are called adverbial elements.

This division of the sentence will aid in understanding complicated sentences.

THE FORMS OF THE SENTENCES.

40. The declarative sentence is the most direct form of statement. It declares or asserts something as a fact; as,

The lambs play.

The happy lambs play on the hill side.

When the lambs play on the hill side they are happy.

The lambs play on the hill side, and the sheep feed in the vale below.

All of the above sentences are declarative, because they state facts.

INTERROGATIVE SENTENCES.

41. The modes of thought are not always for telling, declaring or asserting. The mode may be for questioning, ordering or exclaiming.

We will observe that the following sentences,

Who leads his class?

Have those men a soul?

do not assert, but, on the contrary, they make inquiries; they are questions.

When the mode of thought makes a sentence that asks a question it is called an **interrogative sentence. A sentence that asks a question is called an Interrogative Sentence.**

42. The simple subject of the interrogative sentence often follows the predicate verb. Thus,

Is Henry your son? Henry is your son.

Know you the law? You know the law.

Observe the difference in the order when the sentences are changed to the declarative form.

43. The predicate of an interrogative sentence is often a verb phrase commencing with do, does, did. In this case the subject comes between the two parts of the verb phrase. Thus,

Do you *blame* the child?

Does the boy *go* to school?

Did they *find* the book?

44. Interrogative sentences often begin with the pronouns who, whose, whom, which and what.

Who is reading? Which one is gone?

Whom did you see? What pleases you?

Pronouns thus used are called **interrogative pronouns.**

The interrogative sentence may be simple, complex or compound. Thus,

Did it ever seem possible that we should meet with poverty?

Did you see that the man was frightened, and that the boy was not?

IMPERATIVE SENTENCES.

45. Each of the following groups of words express a command:

Open the window. Pass the apples to John, please.

We observe the following peculiarities in these expressions:

1. There is a verb in each: *open*, *pass*.

2. No subject is stated, yet the speaker must have had some one in mind, namely, the person to whom he was speaking.

46. The subject may be expressed by prefixing to the verb the pronoun *you*. Thus:

[You] open the window. [You] pass the apples to John, please.

These expressions are peculiar kinds of sentences, with predicate expressed and the subject *you* understood.

These sentences are directly addressed to someone, and express either a command or a request.

Such sentences are called imperative sentences.

An Imperative Sentence expresses a command or a request. The subject is usually omitted, but when expressed it is either thou or you.

EXCLAMATORY SENTENCES.

47. A sentence of any form may be uttered as a kind of a cry expressing some strong emotion. Thus:

He lives! What do you say? Stay here!

These sentences are called **exclamatory sentences,** yet they are of different kinds. The first is declarative; the second, interrogative; the third, imperative.

Exclamations are expressed in the following peculiar sentences:

What a smart boy! How quickly the flower fades!

While these sentences do exclaim, they are essentially declarative sentences.

48. **Any sentence that expresses surprise, grief or any strong emotion in the form of an exclamation may be called an exclamatory sentence.**

49. The exclamation is denoted by the exclamation point (!) terminating the sentence, if it is declarative or imperative.

FORM OF ANALYSIS.

50. In analyzing a simple sentence the following order may be observed:

(1) Carefully read the sentence; (2) divide the sentence into the complete subject and the complete predicate; (3) mention the simple subject and the simple predicate; (4) mention and describe each of the modifiers of the subject and of the predicate; (5) mention the complementary elements, and state whether they are predicate nominative, predicate adjective, or object; (6) finally, point out as independent elements all the interjections and vocatives.

51. In analyzing a compound sentence: (1) divide the sentence into its clauses, and point out the conjunctions that connect them; (2) analyze each clause as if it were a simple sentence.

52. In analyzing a complex sentence: (1) divide the sentence into its clauses; (2) point out the principal clause and the subordinate clauses; (3) analyze the principal clause, mentioning the subordinate clauses in their proper places as modifiers or as substantives; (4) analyze the subordinate clause.

53. If the sentence is compound, with complex members, analyze each complex member as a complex sentence.

FORMS OF DISCOURSE.

54. **Prose and poetry** are the two general divisions of discourse.

55. Poetry is a metrical form of discourse, of which there are many varieties. The divisions of discourse written in poetry are the canto, the stanza, the verse, and the sentence.

56. The forms of discourse are narration, description, exposition, argumentation and persuasion.

57. The divisions of discourse written in prose are the chapter, the paragraph and the sentence.

58. The sentence in poetry is the same as it is in prose, excepting that it is frequently transposed and is usually more involved.

59. The paragraph is a division in prose discourse next longer than the sentence. It corresponds to the stanza in poetry.

60. Every long discourse is divided into **paragraphs.**

61. **A paragraph has unity.**

A paragraph may be composed of one or several sentences.

Usually a short discourse of less than one page is written in one paragraph.

CIVIL SERVICE
SPELLING AND DERIVATIONS

Not until the invention of printing did English spelling begin to assume anything like method. Yet it remained crude and uncertain until the publication of Dr. Samuel Johnson's dictionary in 1755. This author projected a system of spelling which helped to fix the external form of the language, but his failure to fit his practice to his theory ran him into many spelling inconsistencies. Many subsequent attempts have been made to reduce the spelling of words to a uniform system, that of Dr. Noah Webster, in the edition of his dictionary published in 1828, having had a marked orthographic influence, especially in the United States. He improved his system in subsequent editions, and his rules for spelling certain classes of words are, for the most part, followed here.

RULE I.—At the end of words of one syllable, and immediately after a single vowel, the letters *f* and *l* are generally doubled; as in *staff, cliff, puff; all, bell, call, hill, null.* Important exceptions are *clef, if, of, pal, nil, sol.*

RULE II.—The letter *s* at the end of a word of one syllable, and immediately after a single vowel, is generally doubled; as in *grass, press, hiss, moss, truss.* Important exceptions are *as, gas, yes, his, this, plus, thus, us.* This rule does not apply when *s* is used to form the possessive case or plural of a noun, or the third person singular of a verb; as in *spade's, bones, loves, has, was,* etc.

RULE III.—In a few instances the consonants *b, d, g, m, n, p, r, t* and *z* follow RULE I and double the last consonant; as in *ebb, odd, egg, Finn, bunn, parr, err, mitt, butt, buzz.*

RULE IV.—A consonant at the end of a word, and immediately following a diphthong or double vowel, is seldom doubled; as in *ail, peat, haul, door, maim. Guess* looks like an exception, but the *u* is inserted merely to harden the *g.*

RULE V.—In words of a single syllable, ending in *c* (pronounced as *k*) after a vowel, the *k* is usually made to follow the *c;* as in *black, fleck, knock, buck.* Exceptions are *talc, zinc, arc, disc,* etc.

RULE VI.—Words of more than one syllable, ending in *ic* or *iac* (*c* sounded as *k*), are written without the *k;* as, *maniac, elegiac, zodiac, cubic, music, public. Derrick* is an exception. But when in words of more than one syllable the *c* follows any other vowels than *i* and *ia*, the common ending is *ck;* as *barrack, hammock, hillock, wedlock. Almanac, manioc, havoc,* and a few others are exceptions.

RULE VII.—When one word is derived from another ending in *c*, by adding a termination ending in *e, i* or *y*, a *k* is made to follow the *c*, to prevent the sounding of *c* as *s;* as, *colic, colicky; traffic, trafficker; physic, physicking.*

RULE VIII.—When one word is derived from another ending in a consonant preceded by a vowel, the same being a monosyllable or word accented on the last syllable, the final consonant is doubled; as, *clan, clan'nish; plan, plan'ning; bag, bag'gage; hot, hot'ter, hot'test; squat, squat'ter. Gas, gaseous* is an exception. Other exceptions are found in derivatives in which the accent of the primitive word is thrown back a syllable; as, *prefer', pref'erence; defer', def'erence.*

RULE IX.—But when a diphthong precedes the final consonant of a word, or the accent falls on other than the last syllable, or the ending be in two different consonants, the final consonant is not doubled in derivatives formed by the addition of a termination beginning with a vowel; as, *daub, daub'er; brief, brief'er; rev'el, rev'eler; trav'el, trav'eler; perform', performer.* There are a few exceptions, like *humbug, humbugged.* The derivatives of *kidnap* are spelled with either a single or double *p.* There is much diversity of opinion and usage among lexicographers as to the spellings under RULE IX.

RULE X.—Derivatives from words ending in a double consonant, by adding one or more syllables, generally retain both consonants; as, *ebb, ebbing; stiff, stiffness; skill, skillful; full, fullness.* An exception is *pontiff, pontificial.* In words like *ill, illy,* one *l* is dropped out to save repeating it three times; when the termination is *less*, the three *l's* may be retained with the use of a hyphen; as, *skill-less;* or the hyphen and one *l* may be omitted; as, *skilless.*

RULE XI.—When derivatives are formed from words ending in *e* silent, the *e* is mostly retained if the termination begins with a consonant; as, *pale, paleness; hate, hateful; move, movement.* But when the *e* is preceded by a vowel other than itself it is often dropped from the derivative; as, *due, duly; awe, awful.* There are many exceptions to this rule; as, *wholly, wisdom, judgment,* etc.

RULE XII.—When words ending in *e* silent go to form derivatives beginning with a vowel, the *e* is generally omitted; as, *bride, bridal; plume, plumage; force, forcible.* But for reasons of pronunciation the *e* is retained in *hoeing, shoeing, dyeing, peaceable, changeable, outrageous, saleable,* and a list of like words. Many lexicographers dispute the second part of this rule and spell according to the first part.

RULE XIII.—When words ending in *ie* go to form derivatives ending in *ing*, the *e* is usually dropped and the *i* changed into *y;* as, *die, dying; lie, lying; tie, tying.*

RULE XIV.—Words ending in *y* preceded by a consonant form derivatives by changing the *y* into *i*, except when the part added to make the derivative begins with *i* or *y;* as, *pity, pitiful; icy, iciest; mercy, merciless.* But adjectives of one syllable are exceptions; as, *dry, dryly; shy, shyness; sly, slyest;* but *dry, driest* is common. When the derivative is formed by adding the termination *ship*, the *y* is generally retained; as, *lady, ladyship; surety, suretyship.*

RULE XV.—Derivatives formed by adding a termination to words ending in *y* preceded by a vowel generally retain the *y;* as, *play, player; obey, obeying; buy, buying.* Exceptions are: *day, daily; lay, laid; pay, paid; say, said; stay, staid.*

RULE XVI.—Derivatives formed by adding a syllable to words ending in a vowel sound generally retain the letters corresponding to that sound; as, *agree, agreeable; weigh, weighing; echo, echoed.*

RULE XVII.—Derivatives formed by prefixes to words ending in double consonants generally retain both consonants; as, *tipstaff, foretell, fulfill, enroll. Until* is an exception.

RULE XVIII.—Hyphenated compound words retain the letters of the simple words; as, *stiff-necked, dull-eyed, brick-yard.*

RULE XIX.—Analogy requires that the noun and verb which are pronounced alike should agree in spelling; as, *notice, noticed; poultice, poulticing; office, officer.*

RULE XX.—*Defense, expense. offense* and *pretense* are better spelled with an *s* than a *c*, because the words from which they are derived contain an *s*, and *s* is used in all their derivatives; as, *defensive, expensive,* etc.

RULE XXI.—Words like *centre, metre, theatre,* etc., are now written by many authors *center, meter, theater,* etc. But *acre, lucre, massacre,* etc., retain the *re* in order to preserve the hard sound of the *c*.

RULE XXII.—There is a long list of words ending in *ise* or *ize*, as *civilise* or *civilize, criticise* or *criticize*, which admit of both spellings. It may be said that in England *ise* is most used, and in the United States, *ize;* though we still retain *advertise, advise, apprise, arise, chastise, circumcise, comprise, compromise, criticise, demise, despise, devise, franchise, disguise, exercise, merchandise, revise, surmise, surprise,* etc.

RULE XXIII.—The English termination *our*, as in *honour, favour,* etc., is now almost universally spelled *or* in the United States; as, *honor, favor, labor, vigor.*

RULE XXIV.—The old termination *pede* (*pes*, the foot) is now mostly written *ped;* as, *biped, centiped, quadruped,* etc. We have, however, *centipede* and *velocipede.*

Comparative View of Disputed Spellings.

Here is given a comparative view of the disputed spellings of miscellaneous words from the **Standard, Century** and **Webster Dictionaries.** The letters placed after the spellings recommended indicate those preferred.

S stands for "A Standard Dictionary."

C stands for "The Century Dictionary."

W stands for "Webster's International Dictionary."

The preferred and recommended spellings are in the second column, except as to the dictionary whose initial is omitted; then they are in the first column. Observe that **S** prefers the second column entire, and **C** in large part.

A

abridgement:	**abridgment**	W. C. S.
accoutre:	**accouter**	W. S.
acknowledgement:	**acknowledgment**	W. C. S.
adze:	**adz**	W. C. S.
aeolian:	**eolian**	S.
aeon:	**eon**	W. C. S.
aesthetic:	**esthetic**	C. S.
aesthetics:	**esthetics**	C. S.
aetiology:	**etiology**	S.
aigrette:	**aigret**	C. S.
align:	**aline**	C. S.
amortise:	**amortize**	W. C. S.
amphitheatre:	**amphitheater**	W. C. S.
anaemia:	**anemia**	C. S.
analyse:	**analyze**	W. C. S.
aniline:	**anilin**	S.
apophthegm:	**apothegm**	W. C. S.
apotheme:	**apothem**	W. C. S.
apparelled:	**appareled**	W. C. S.
apparelling:	**appareling**	W. C. S.
apprise:	**apprize**	C. S.
arbour:	**arbor**	W. C. S.
archaean:	**archean**	S.
archaeology:	**archeology**	S.
ardour:	**ardor**	W. C. S.
armour:	**armor**	W. C. S.
armoured:	**armored**	W. C. S.
axe:	**ax**	W. C. S.

B

backsheesh:	**bakshish**	C. S.
bailiff:	**bailif**	S.
barque:	**bark**	W. C. S.
barrelled:	**barreled**	W. C. S.
bastille:	**bastile**	C. S.
basyle:	**basyl**	C. S.
baulk:	**balk**	W. C. S.
bazaar:	**bazar**	S.
behaviour:	**behavior**	W. C. S.
belabour:	**belabor**	W. C. S.
benzine:	**benzin**	C. S.
berhyme:	**berime**	C. S.
bevelled:	**beveled**	W. C. S.
biassed:	**biased**	W. C. S.
bicoloured:	**bicolored**	W. C. S.
bisque:	**bisk**	C. S.
bistre:	**bister**	W. C. S.
boose:	**booze**	W. C. S.
boosy:	**boozy**	W. C. S.
bromide:	**bromid**	S.
bromine:	**bromin**	S.
bye:	**by**	C. S.

C

caesium:	**cesium**	W. S.
caffeine:	**caffein**	C. S.
calibre:	**caliber**	W. C. S.
caliph:	**calif**	C. S.

callipers:	calipers	W. C. S.
candour:	candor	W. C. S.
catechise:	catechize	C. S.
cauldron:	caldron	W. C. S.
caulk:	calk	W. C. S.
caviare:	caviar	C. S.
centigramme:	centigram	W. C. S.
centimetre:	centimeter	W. C. S.
centilitre:	centiliter	W. C. S.
centre:	center	W. C. S.
centred:	centered	C. S.
centring:	centering	C. S.
cheque:	check	W. C. S.
chequer:	checker	W. C. S.
chintz:	chints	S.
chloride:	chlorid	C. S.
chlorine:	chlorin	C. S.
cigarette:	cigaret	S.
civilisation:	civilization	W. C. S.
civilise:	civilize	W. C. S.
cocaine:	cocain	S.
colour:	color	W. C. S.
coloured:	colored	W. C. S.
colouring:	coloring	W. C. S.
coquette (verb):	coquet	C. S.
councillor:	councilor	W. C. S.
counsellor:	counselor	W. C. S.
courtesan:	courtezan	C. S.
cosey:	cozy	W. C. S.
crumb:	crum	S.
cyclopaedia:	cyclopedia	W. C. S.

D

dactyle:	dactyl	W. C. S.
decigramme:	decigram	W. C. S.
decilitre:	deciliter	W. C. S.
decimetre:	decimeter	W. C. S.
defence:	defense	W. C. S.
dekagramme:	dekagram	S.
dekalitre:	dekaliter	S.
dekametre:	dekameter	S.
demagogue:	demagog	C. S.
demeanour:	demeanor	W. C. S.
develope:	develop	W. C. S.
diaeresis:	dieresis	C. S.
dialled:	dialed	W. C. S.
dialogue:	dialog	S.
diarrhoea:	diarrhea	W. C. S.
disc:	disk	W. C. S.
discolour:	discolor	W. C. S.
disfavour:	disfavor	W. C. S.
dishevelled:	disheveled	W. C. S.
disseise:	disseize	W. C. S.
distill:	distil	C. S.
dolour:	dolor	W. C. S.
domicile:	domicil	S.
drachm:	dram	W. C. S.
draught:	draft	W. C. S.
dribblet:	driblet	C. S.
driveller:	driveler	W. C. S.
dueller:	dueler	W. C. S.
duellist:	duelist	W. C. S.
dullness:	dulness	S.
dyke:	dike	W. C. S.

E

embarcation:	embarkation	W. C. S.
enamelled:	enameled	W. C. S.
enamour:	enamor	W. S.
encyclopaedia:	encyclopedia	W. C. S.
endeavour:	endeavor	W. C. S.
endeavoured:	endeavored	W. C. S.
endeavouring:	endeavoring	W. C. S.
enrollment:	enrolment	C. S.
envelope:	envelope, envelop	W. C. S.
epaulette:	epaulet	W. C. S.
epauletted:	epauleted	W. C. S.
epistolise:	epistolize	W. C. S.
equalled:	equaled	W. C. S.

F

faecal:	fecal	W. C. S.
faeces:	feces	C. S.
faggot:	fagot	W. C. S.
favour:	favor	W. C. S.
favoured:	favored	W. C. S.
favouring:	favoring	W. C. S.
fibre:	fiber	W. C. S.
flavour:	flavor	W. C. S.
fluoride:	fluorid	S.
fluorine:	fluorin	C. S.
flyer:	flier	W. C. S.
foetal:	fetal	W. C. S.
foetus:	fetus	W. C. S.
fuelled:	fueled	W. C. S.
fulfill:	fulfil	C. S.
fullness:	fulness	S.

G

galoche:	galosh	C. S.
gambolled:	gamboled	W. C. S.
gangue:	gang	W. S.
gauge:	gage	C. S.
gaol:	jail	W. C. S.
gaoler:	jailer	W. C. S.
gauntlet:	gantlet	W. C. S.
gayety:	gaiety	C. S.
gayly:	gaily	C. S.
gazelle:	gazel	C. S.
gelatine:	gelatin	W. C. S.
glycerine:	glycerin	W. C. S.
good-bye:	good-by	W. C. S.
governour:	governor	W. C. S.
gramme:	gram	W. C. S.
gravelled:	graveled	W. C. S.
groveller:	groveler	W. C. S.
guild:	gild	C. S.
gypsy:	gipsy	C. S.

H

haematic:	hematic	C. S.
haemorrhage:	hemorrhage	W. C. S.
harbour:	harbor	W. C. S.
harboured:	harbored	W. C. S.
hasheesh:	hashish	C. S.
havock:	havoc	W. C. S.
hearken:	harken	C. S.
hektogramme:	hektogram	S.
hektolitre:	hektoliter	S.
hektometre:	hektometer	S.
homoeopathy:	homeopathy	W. C. S.
homonyme:	homonym	W. C. S.
honour:	honor	W. C. S.
honourable:	honorable	W. C. S.
honoured:	honored	W. C. S.
honouring:	honoring	W. C. S.
hoveller:	hoveler	W. C. S.
humour:	humor	W. C. S.
hydride:	hydrid	C. S.
hydroxide:	hydroxid	C. S.

I

idolise:	idolize	W. C. S.
illegalise:	illegalize	W. C. S.
immaterialise:	immaterialize	W. C. S.
immortalise:	immortalize	W. C. S.
impanelled:	impaneled	W. C. S.
imperilled:	imperiled	W. C. S.
iodide:	iodid	S.
iodine:	iodin	S.

J

jewelled:	jeweled	W. C. S.
jewellery:	jewelry	W. C. S.
joust:	just	W. C. S.

K

kennelled:	kenneled	W. C. S.
kilogramme:	kilogram	W. C. S.
kilolitre:	kiloliter	W. C. S.
kilometre:	kilometer	W. C. S.

L

labelled:	labeled	W. C. S.
labour:	labor	W. C. S.
laboured:	labored	W. C. S.
lacrymal:	lacrimal	S.
laurelled:	laureled	W. C. S.
ledgement:	ledgment	W. C. S.
ledger (adj.)	leger	W. C. S.
legalise:	legalize	W. C. S.
leucorrhoea:	leucorrhea	C. S.
levelled:	leveled	W. C. S.

libelled:	**libeled**	W.	C.	S.
licence:	**license**	W.	C.	S.
liquorice:	**licorice**	W.	C.	S.
Linnaean:	**Linnean**		C.	S.
litre:	**liter**	W.	C.	S.
lodgement:	**lodgment**	W.	C.	S.
lustre:	**luster**	W.	C.	S.
	M			
mamma:	**mama**		C.	S.
manoeuvre:	**maneuver**	W.		S.
marshalled:	**marshaled**	W.	C.	S.
marvelled:	**marveled**	W.	C.	S.
marvellous:	**marvelous**	W.	C.	S.
materialise:	**materialize**	W.	C.	S.
meagre:	**meager**	W.	C.	S.
medalled:	**medaled**	W.	C.	S.
mediaeval:	**medieval**		C.	S.
metalled:	**metaled**	W.	C.	S.
metre:	**meter**	W.	C.	S.
milligramme:	**milligram**	W.	C.	S.
millilitre:	**milliliter**	W.	C.	S.
millimetre:	**millimeter**	W.	C.	S.
mitre:	**miter**	W.	C.	S.
modelled:	**modeled**	W.	C.	S.
morphine:	**morphin**			S.
mould:	**mold**	W.	C.	S.
moult:	**molt**	W.	C.	S.
moustache:	**mustache**	W.	C.	S.
myriagramme:	**myriagram**	W.	C.	S.
myriametre:	**myriameter**	W.	C.	S.
	N			
neighbour:	**neighbor**	W.	C.	S.
nitre:	**niter**	W.	C.	S.
novelette:	**novelet**			S.
	O			
ochre:	**ocher**	W.	C.	S.
ochrey:	**ochery**	W.	C.	S.
odour:	**odor**	W.	C.	S.
oesophagus:	**esophagus**	W.	C.	S.
offence:	**offense**	W.	C.	S.
oleomargarine:	**oleomargarin**		C.	S.
ombre:	**omber**	W.		S.
oriflamme:	**oriflam**			S.
oxide:	**oxid**		C.	S.
	P			
paedobaptist:	**pedobaptist**	W.	C.	S.
palaestra:	**palestra**	W.	C.	S.
panelled:	**paneled**	W.	C.	S.
paraffine:	**paraffin**	W.	C.	S.
parallelled:	**paralleled**	W.	C.	S.
paralyse:	**paralyzed**	W.	C.	S.
parcelled:	**parceled**	W.	C.	S.
parlour:	**parlor**	W.	C.	S.
parquette:	**parquet**	W.	C.	S.
partisan:	**partizan**		C.	S.
peddler:	**pedler**			S.
peddlery:	**pedlery**			S.
pencilled:	**penciled**	W.	C.	S.
perilled:	**periled**	W.	C.	S.
peroxide:	**peroxid**		C.	S.
Phoenician:	**Phenician**		C.	S.
phosphine:	**phosphin**			S.
phoenix:	**phenix**	W.	C.	S.
phosphuretted:	**phosphureted**	W.	C.	S.
phthisic:	**tisic**			S.
pistolled:	**pistoled**	W.	C.	S.
plough:	**plow**	W.	C.	S.
ploughed:	**plowed**	W.	C.	S.
ploughable:	**plowable**	W.	C.	S.
ploughboy:	**plowboy**	W.	C.	S.
ploughman:	**plowman**	W.	C.	S.
ploughshare:	**plowshare**	W.	C.	S.
poenology:	**penology**	W.	C.	S.
polype:	**polyp**	W.	C.	S.
practice:	**practise**		C.	S.
praetor:	**pretor**	W.	C.	S.
premise:	**premis**			S.
premise:	**premize**			S.
pretence:	**pretense**	W.	C.	S.
preterite:	**preterit**	W.	C.	S.
programme:	**program**		C.	S.
	Q			
quarrelled:	**quarreled**	W.	C.	S.
quartette:	**quartet**		C.	S.
quay:	**key**			S.
queue:	**cue**			S.
quinine:	**quinin**			S.
quintette:	**quintet**		C.	S.
	R			
rancour:	**rancor**	W.	C.	S.
rase:	**raze**	W.		S.
receipt:	**receit**			S.
reconnoitre:	**reconnoiter**	W.	C.	S.
redoubt:	**redout**		C.	S.
revelled:	**reveled**	W.	C.	S.
revelling:	**reveling**	W.	C.	S.
rhyme:	**rime**		C.	S.
rhymer:	**rimer**		C.	S.
rigour:	**rigor**	W.	C.	S.
rigourous:	**rigorous**	W.	C.	S.
rivalled:	**rivaled**	W.	C.	S.
rivetted:	**riveted**	W.	C.	S.
rosette:	**roset**		C.	S.
rowelled:	**roweled**	W.	C.	S.
	S			
sabre:	**saber**	W.	C.	S.
saltpetre:	**saltpeter**	W.	C.	S.
saviour:	**savior**	W.	C.	S.
savour:	**savor**	W.	C.	S.
savoured:	**savored**	W.	C.	S.
scent:	**sent**			S.
sceptic:	**skeptic**	W.	C.	S.
sceptre:	**scepter**	W.	C.	S.
sceptred:	**sceptered**	W.	C.	S.
scimiter:	**simitar**		C.	S.
scythe:	**sithe**			S.
semestre:	**semester**	W.	C.	S.
sepulchre:	**sepulcher**	W.	C.	S.
sestette:	**sestet**	W.	C.	S.
sheriff:	**sherif**	W.	C.	S.
shovelled:	**shoveled**	W.	C.	S.
shrivelled:	**shriveled**	W.	C.	S.
skillful:	**skilful**		C.	S.
smoulder:	**smolder**	W.	C.	S.
snivelled:	**sniveled**	W.	C.	S.
sniveller:	**sniveler**	W.	C.	S.
sombre:	**somber**	W.	C.	S.
somerset:	**sumerset**			S.
spectre:	**specter**	W.	C.	S.
steadfast:	**stedfast**			S.
stenciller:	**stenciler**	W.	C.	S.
succour:	**succor**	W.	C.	S.
succoured:	**succored**	W.	C.	S.
sulphate:	**sulfate**			S.
sulphatite:	**sulfatite**			S.
sulphide:	**sulfid**			S.
sulphite:	**sulfite**			S.
sulphonic:	**sulfonic**			S.
sulphur:	**sulfur**			S.
sulphurate:	**sulfurate**			S.
sulphuration:	**sulfuration**			S.
sulphurator:	**sulfurator**			S.
sulphureous:	**sulfureous**			S.
sulphureted:	**sulfureted**			S.
sulphuric:	**sulfuric**			S.
sulphurous:	**sulfurous**			S.
synagogue:	**synagog**			S.
synonyme:	**synonym**	W.	C.	S.
syrup:	**sirup**	W.		S.
	T			
tasselled:	**tasseled**	W.	C.	S.
teasel:	**teazel**		C.	S.
tendrilled:	**tendriled**		C.	S.
theatre:	**theater**	W.	C.	S.
tinselled:	**tinseled**	W.	C.	S.
tourmaline:	**tourmalin**		C.	S.
towelling:	**toweling**	W.	C.	S.
trammelled:	**trammeled**	W.	C.	S.
tranquilise:	**tranquilize**	W.	C.	S.
travelled:	**traveled**	W.	C.	S.
traveller:	**traveler**	W.	C.	S.
travelling:	**traveling**	W.	C.	S.
travertine:	**travertin**		C.	S.
trowelled:	**troweled**	W.	C.	S.
tumour:	**tumor**	W.	C.	S.
tunnelled:	**tunneled**	W.	C.	S.

U

umbre:	**umber**	W. C. S.

V

valour:	**valor**	W. C. S.
vapour:	**vapor**	W. C. S.
varvelled:	**varveled**	W. C. S.
vialled:	**vialed**	W. C. S.
victualled:	**victualed**	W. C. S.
vice:	**vise**	W. C. S.
vigour:	**vigor**	W. C. S.
visier:	**vizier**	W. S.
visor:	**vizor**	C. S.

W

waggon:	**Wagon**	W. C. S.
whiskey:	**whisky**	W. C. S.
willful:	**wilful**	C. S.
woe:	**wo**	S.
woeful:	**woful**	S.
woollen:	**woolen**	W. C. S.
worshipper:	**worshiper**	W. C. S.

The principles exemplified in the above list may well be extended to the various derivatives of the words mentioned, and to technical or rare words not mentioned.

SIMPLIFICATIONS IN SPELLING.

Class I.

The following simplified forms of spelling have been recommended by the Philological Society of London, The American Philological Association, The Modern Language Association of America, and the Orthographic Union. They are recognized in the columns of "A Standard Dictionary," in the lists at the end of "The Century Dictionary," and in the introduction to "Webster's International Dictionary." A considerable number of authors, editors and educators have agreed to use them. **Class I** embraces the words ending in *ed*, when *ed* has the sound of *t*. In such cases spell simply with a *t*, and if a double consonant or dipthong precedes, reduce it to a single consonant; as, *exprest*, not *expresst*.

The spellings recommended are in the second column.

A

abashed:	**abasht**
abolished:	**abolisht**
accomplished:	**accomplisht**
accursed:	**accursed, accurst**
addressed:	**addrest**
admixed:	**admixt**
admonished:	**admonisht**
affixed:	**affixt**
amassed:	**amast**
ambushed	**ambusht**
anguished:	**anguisht**
annexed:	**annext**
approached:	**approacht**
arched:	**archt**
asked:	**askt**
assessed:	**assest**
astonished:	**astonisht**
attached:	**attacht**
attacked:	**attacht**
avouched:	**avoucht**

B

backed:	**backt**
balked:	**balkt**
banished:	**banisht**
banked:	**bankt**
basked:	**baskt**
beaked:	**beakt**
bedecked:	**bedeckt**
bedrenched:	**bedrencht**
belched:	**belcht**
betrothed:	**betrotht**
bewitched:	**bewitcht**
biased:	**biast**
bilked:	**bilkt**
blacked:	**blackt**
blanched:	**blancht**
blandished:	**blandisht**
bleached:	**bleacht**
blemished:	**blemisht**
blenched:	**blencht**
blessed:	**blessed, blest**
blinked:	**blinkt**
blocked:	**blockt**
blotched:	**blotcht**
bluffed:	**bluft**
blushed:	**blusht**
booked:	**bookt**
bossed:	**bost**
botched:	**botcht**
boxed:	**boxt**
branched:	**brancht**
breached:	**breacht**
breeched:	**breecht**
bricked:	**brickt**
briefed:	**brieft**
broached:	**broacht**
brushed:	**brusht**
bucked:	**buckt**
bumped:	**bumpt**
bunched:	**buncht**
burked:	**burkt**
burnished:	**burnisht**
bushed:	**busht**
bussed:	**bust**
buttressed:	**buttrest**

C

calked:	**calkt**
camped:	**campt**
caressed:	**carest**
carped:	**carpt**
caucused:	**caucust**
ceased:	**ceast**
chaffed:	**chaft**
chalked:	**chalkt**
chapped:	**chapt**
checked:	**checkt**
cherished:	**cherisht**
chipped:	**chipt**
chirped:	**chirpt**
chirruped:	**chirrupt**
chopped:	**chopt**
chucked:	**chuckt**
churched:	**churcht**
clacked:	**clackt**
clanked:	**clankt**
clapped:	**clapt**
clashed:	**clasht**
clasped:	**claspt**
classed:	**clast**
clerked:	**clerkt**
clicked:	**clickt**
clinched:	**clincht**
clinked:	**clinkt**
clipped:	**clipt**
cloaked:	**cloakt**
clucked:	**cluckt**
clutched:	**clutcht**
coached:	**coacht**
coaxed:	**coaxt**
cocked:	**cockt**
collapsed:	**collapst**
commixed:	**commixt**
compassed:	**compast**
compressed:	**comprest**
condensed:	**condenst**
confessed:	**confest**
conversed:	**converst**
cooked:	**cookt**
cooped:	**coopt**
corked:	**corkt**
couched:	**coucht**
countermarched:	**countermarcht**
cracked:	**crackt**
cramped:	**crampt**
crashed:	**crasht**
creaked:	**creakt**
creased:	**creast**
crimped:	**crimpt**
crisped:	**crispt**
croaked:	**croakt**
crooked:	**crooked, crookt**
crossed:	**crost**
crotched:	**crotcht**
crouched:	**croucht**
crushed:	**crusht**
crutched:	**crutcht**
cuffed:	**cuft**
cupped:	**cupt**
cursed:	**cursed, curst**

D

damped:	**dampt**
dashed:	**dasht**
debarked:	**debarkt**
debauched:	**debaucht**
decamped:	**decampt**
deceased:	**deceast**
decked:	**deckt**
decreased:	**decreast**
demolished:	**demolisht**
depressed:	**deprest**
detached:	**detacht**
developed:	**developt**
diminished:	**diminisht**
dipped:	**dipt**
disbursed:	**disburst**
discussed:	**dicust**
disembarked:	**disembarkt**
disembarrased:	**disembarrast**
dished:	**disht**
dismissed:	**dismist**
dispensed:	**dispenst**
dispossed:	**dispossest**
distinguished:	**distinguisht**
distressed:	**distrest**
ditched:	**ditcht**
docked:	**dockt**
doffed:	**doft**
drenched:	**drencht**
dressed:	**drest**
dripped:	**dript**
dropped:	**dropt**
ducked:	**duckt**
dwarfed:	**dwarft**

E

eclipsed:	**eclipst**
elapsed:	**elapst**
embarked:	**embarkt**
embarrassed:	**embarrast**
embellished:	**embellisht**
embossed:	**embost**
encamped:	**encampt**
encompassed:	**encompast**
encroached:	**encroacht**
enfeoffed:	**enfeoft**
engulfed:	**engulft**
enravished:	**enravisht**
enriched:	**enricht**
entrapped:	**entrapt**
enveloped:	**envelopt**
equipped:	**equipt**
established:	**establisht**
etched:	**etcht**
expressed:	**exprest**
extinguished:	**extinguisht**

F

famished:	**famisht**
fetched:	**fetcht**
filched:	**filcht**
filliped:	**fillipt**
finished:	**finisht**
fished:	**fisht**
fixed:	**fixt**
flapped:	**flapt**
flashed:	**flasht**
fleshed:	**flesht**
flinched:	**flincht**
flopped:	**flopt**
flourished:	**flourisht**
flushed:	**flusht**
fluxed:	**fluxt**
focused:	**focust**
foxed:	**foxt**
frisked:	**friskt**
frolicked:	**frolickt**
furbished:	**furbisht**

furnished:	furnisht
fussed:	fust

G

gashed:	gasht
gasped:	gaspt
glimpsed:	glimpst
grasped:	graspt
greased:	greased, greast
gripped:	gript
grouped:	groupt
gulfed:	gulft
gulped:	gulpt
gushed:	gusht

H

hacked:	hackt
handcuffed:	handcuft
happed:	hapt
harassed:	harast
harked:	harkt
harnessed:	harnest
harped:	harpt
hashed:	hasht
hatched:	hatcht
havocked:	havockt
hawked:	hawkt
heaped:	heapt
hearsed:	hearst
helped:	helpt
hiccupped:	hiccupt
hipped:	hipt
hissed:	hist
hitched:	hitcht
hoodwinked:	hoodwinkt
hoofed:	hooft
hooked:	hookt
hooped:	hoopt
hopped:	hopt
horsed:	horst
huffed:	huft
humped:	humpt
hushed:	husht
hutched:	hutcht

I

impeached:	impeacht
impoverished:	impoverisht
impressed:	imprest
incensed:	incenst
increased:	increast
indexed:	indext
indorsed:	indorst
infixed:	infixt
inked:	inkt
interlinked:	interlinkt
interspersed:	intersperst
inwrapped:	inwrapt
itched:	itcht

J

jerked:	jerkt

K

kidnapped:	kidnapt
kissed:	kist

L

lacked:	lackt
lanched:	lancht
languished:	languisht
lapped:	lapt
lapsed:	lapst
lashed:	lasht
latched:	latcht
launched:	launcht
leaked:	leakt
leaned:	leaned, leant
leaped:	leapt
learned:	learned, learnt
leased:	least
licensed:	licenst
licked:	lickt
limped:	limpt
linked:	linkt
lipped:	lipt
lisped:	lispt
lithographed:	lithographt
locked:	lockt
looked:	lookt
looped:	loopt
loosed:	loost
lopped:	lopt
luffed:	luft
lumped:	lumpt
lynched:	lyncht

M

mapped:	mapt
marched:	marcht
marked:	markt
masked:	maskt
matched:	matcht
meshed:	mesht
messed:	mest
mimicked:	mimickt
mixed:	mixt
mocked:	mockt
muffed:	muft
mulched:	mulcht
munched:	muncht

N

nicked:	nickt
notched:	notcht
nourished:	nounrisht
nursed:	nurst

O

oppressed:	opprest
outstretched:	outstretcht
outwalked:	outwalkt
overpassed:	overpast

P

packed:	packt
padlocked:	padlockt
paragraphed:	paragrapht
parched:	parcht
parsed:	parst
passed:	past
patched:	patcht
peached:	peacht
pecked:	peckt
peeped:	peept
perched:	percht
perished:	perisht
perked:	perkt
perplexed:	perplext
photographed:	photographt
physicked:	physickt
picked:	pickt
picnicked:	picnickt
pimped:	pimpt
pinched:	pincht
pinked:	pinkt
pished:	pisht
pitched:	pitcht
planked:	plankt
plashed:	plasht
plucked:	pluckt
plumped:	plumpt
poached:	poacht
polished:	polisht
popped:	popt
possessed:	possest
pouched:	poucht
practised:	practist
pranked:	prankt
preached:	preacht
pre-established:	pre-establisht
prefixed:	prefixt
prepossessed:	prepossest
pressed:	prest
pricked:	prickt
prinked:	prinkt
professed:	profest
progressed:	progrest
promised:	promist
propped:	propt
published:	publisht
puffed:	puft
pulsed:	pulst
pumped:	pumpt
punched:	puncht
punished:	punisht
pursed:	purst
pushed:	pusht

Q

quacked:	quackt
quaffed:	quaft
quenched:	quencht

R

racked:	rackt
ramped:	rampt
ranked:	rankt
ransacked:	ransackt
rapped:	rapt
rasped:	raspt
ravished:	ravisht
reached:	reacht
reaped:	reapt
reefed:	reeft
reeked:	reekt
refreshed:	refresht
rehearsed:	rehearst
relapsed:	relapst
relaxed:	relaxt
released:	releast
relinquished:	relinquisht
relished:	relisht
remarked:	remarkt
replenished:	replenisht
repressed:	represt
reproached:	reproacht
republished:	republisht
retouchtd:	retoucht
retrenched:	retrencht
reversed:	reverst
rinsed:	rinst
risked:	riskt
rocked:	rockt
romped:	rompt
roofed:	rooft
ruffed:	ruft
rushed:	rusht

S

sacked:	sackt
sashed:	sasht
scalped:	scalpt
scarfed:	scarft
scoffed:	scoft
scooped:	scoopt
scratched:	scratcht
screeched:	screecht
searched:	searcht
sensed:	senst
shipped:	shipt
shirked:	shirkt
shocked:	shockt
shopped:	shopt
shrieked:	shriekt
sipped:	sipt
sketched:	sketcht
skipped:	skipt
slacked:	slackt
slapped:	slapt
slipped:	slipt
slouched:	sloucht
smacked:	smackt
smashed:	smasht
smelled:	smelled, smelt
smirked:	smirkt
snapped:	snapt
snatched:	snatcht
sneaked:	sneakt
sniffed:	snift
snuffed:	snuft
soaked:	soakt
soaped:	soapt
spanked:	spankt
specked:	speckt
spelled:	spelled, spelt
spilled:	spilled, spilt
splashed:	splasht
spoiled:	spoiled, spoilt
squeaked:	squeakt
stacked:	stackt
stamped:	stampt
stanched:	stancht
stepped:	stept
stitched:	stitcht
stocked:	stockt
stomached:	stomacht
stooped:	stoopt
stopped:	stopt
strapped:	strapt
streaked:	streaked, streakt
stretched:	stretcht
stripped:	stript
stuffed:	stufft
stumped:	stumpt
sucked:	suckt
suffixed:	suffixt
suppressed:	supprest
surpassed:	surpast
swamped:	swampt

T

tacked:	tackt
talked:	talkt
tapped:	tapt
tasked:	taskt
taxed:	taxt
telegraphed:	telegrapht
thanked:	thankt
thrashed:	thrasht
thumped:	thumpt
thwacked:	thwackt
ticked:	tickt
tipped:	tipt
toothed.	tootht
topped:	topt
tossed:	tost
touched:	toucht
tracked:	trackt
trafficked:	traffickt
tramped:	trampt
trapped:	trapt
trenched:	trencht
trespassed:	trespast
tricked:	trickt
tripped:	tript
triumphed:	triumpht
trooped:	troopt
trucked:	truckt
trumped:	trumpt
tucked:	tuckt
tweaked:	tweakt
twitched:	twitcht

V

vamped:	vampt
vanished:	vanisht
vanquished:	vanquisht
versed:	verst
vexed:	vext
vouched:	vouched

W

walked:	walkt
washed:	washt
watched:	watcht
waxed:	waxt
whipped:	whipt
whisked:	whiskt
whooped:	whoopt
winked:	winkt
wished:	wisht
witched:	witcht
worked:	workt
worshipped:	worshipt
wrapped:	wrapt
wreaked:	wreakt
wrecked:	wreckt
wrenched:	wrencht

Y

yerked:	yerkt

SIMPLIFICATIONS IN SPELLING.

Class II.

The simplified forms of spelling found in **Class II** have been recommended by the same authorities as in **Class I.** This class embraces words ending in *ide, ile, ine, ite, mme, tte* and *gue,* in which ending the *e* is silent. The rule is to omit the *e* and preceding silent letters, when the change will not suggest another quality (sound) for a preceding letter.

The spellings recommended are in the second column.

A

adulterine:	**adulterin**
agile:	**agil**
aigrette:	**aigret**
alumine:	**alumin**
amaranthine:	**amaranthin**
amethystine:	**amethystin**
analogue:	**analog**
antitoxine:	**antitoxin**
apologue:	**apolog**
apposite:	**apposit**
aquiline:	**aquilin**
asbestine:	**asbestin**

B

bissextile:	**bissextil**
bowline:	**bowlin**
bromide:	**bromid**
bromine:	**bromin**

C

caffeine:	**coffein**
catalogue:	**catalog**
cedrine:	**cedrin**
centigramme:	**centigram**
chloride:	**chlorid**
chlorine:	**chlorin**
cigarette:	**cigaret**
citrine:	**citrin**
cocaine:	**cocain**
colleague:	**colleag**
composite:	**composit**
contractile:	**contractil**
coquette:	**coquet**

D

decalogue:	**decalog**
decigramme:	**decigram**
definite:	**definit**
demagogue:	**demagog**
destine:	**destin**
determine:	**determin**
dialogue:	**dialog**
discipline:	**disciplin**
docile:	**docil**
doctrine:	**doctrin**
domicile:	**domicil**
ductile:	**ductil**

E

eclogue:	**eclog**
engine:	**engin**
enginery:	**enginry**
ensanguine:	**ensanguin**
epaulette:	**epaulet**
epilogue:	**epilog**
ermine:	**ermin**
etiquette:	**etiquet**
examine:	**examin**
exquisite:	**exquisit**

F

famine:	**famin**
favorite:	**favorit**
febrile:	**febril**
feminine:	**feminin**
fertile:	**fertil**
fibrine:	**fibrin**
fissile:	**fissil**
flexile:	**flexil**
fluoride:	**fluorid**
fluorine:	**fluorin**
fragile:	**fragil**
futile:	**futil**

G

gangue:	**gang**
gelatine:	**gelatin**
genuine:	**genuin**
glycerine:	**glycerin**
gramme:	**gram**
granite:	**granit**

H

harangue:	**harang**
hostile:	**hostil**
hypocrite:	**hypocrit**

I

imagine:	**imagin**
imbecile:	**imbecil**
infinite:	**infinit**
intestine:	**intestin**
iodide:	**iodid**
iodine:	**iodin**

J

jasmine:	**jasmin**
jessamine:	**jessamin**
juvenile:	**juvenil**

K

kilogramme:	**kilogram**

L

league:	**leag**
leagued:	**leaged**
libertine:	**libertin**

M

masculine:	**masculin**
medicine:	**medicin**
mercantile:	**mercantil**
milligramme:	**milligram**
missile:	**missil**
monologue:	**monolog**

N

novelette:	**novelet**
nubile:	**nubil**

O

opposite:	**opposit**
oxide:	**oxid**

P

palatine:	**palatin**
parquette:	**parquet**
pedagogue:	**pedagog**
pensile:	**pensil**
prehensile:	**prehensil**
perquisite:	**perquisit**
prerequisite:	**prerequisit**
predestine:	**predestin**
predetermine:	**predetermin**
preterite:	**preterit**
pristine:	**pristin**
programme:	**program**
projectile:	**projectil**
prologue:	**prolog**
puerile:	**pueril**
pulsatile:	**pulsatil**
purline:	**purlin**

Q

quartette:	**quartet**
quintette:	**quintet**

R

reptile:	**reptil**
requisite:	**requisit**
respite:	**respit**
retractile:	**retractil**
rosette:	**roset**

S

sanguine:	**sanguin**
sardine:	**sardin (gem)**
scurrile:	**scurril**
servile:	**servil**
sessile:	**sessil**
sestette:	**sestet**
sextile:	**sextil**
sterile:	**steril**
stockinette:	**stockinet**
subtile:	**subtil**
synagogue:	**synagog**

T

tactile:	**tactil**
textile:	**textil**
theologue:	**theolog**

U

uterine:	**uterin**

V

vaccine:	**vaccin**
vedette:	**vedet**
volatile:	**volatil**

X

xanthine:	**xanthin**

IMPROVED SPELLINGS OF CHEMICAL TERMS.

The American Association for Advancement of Science has adopted a set of rules for simplifying the spelling of chemical terms, and the spellings recommended by the Society under said rules have been adopted in various scientific publications, by "A Standard Dictionary," and largely by the "Century Dictionary." The following list embraces the words used in popular and elementary chemical writings:

aconitine:	**aconitin**	hematine:	**hematin**
albumin:	**albumen**	hydride:	**hydrid**
alizarine:	**alizarin**	hydroxide:	**hydroxid**
amide:	**amid**	imide:	**imid**
amine:	**amin**	inuline:	**inulin**
anhydride:	**anhydrid**	iodide:	**iodid**
aniline:	**anilin**	iodine:	**iodin**
antimonide:	**antimonid**	kreatine:	**kreatin**
antitoxine:	**antitoxin**	lactine:	**lactin**
arabine:	**arabin**	legumine:	**legumin**
arsenide:	**arsenid**	lignine:	**lignin**
arsine:	**arsin**	lupuline:	**lupulin**
asbestus:	**asbestos**	margarine:	**margarin**
atropine:	**atropin**	metre:	**meter**
boride:	**borid**	morphine:	**morphin**
bromide:	**bromid**	mucine:	**mucin**
bromine:	**bromin**	murexide:	**murexid**
cæsium:	**cesium**	myosine:	**myosin**
caffeine:	**caffein**	nicotine:	**nicotin**
carbide:	**carbid**	nitride:	**nitrid**
caseine:	**casein**	olefine:	**olefin**
celluline:	**cellulin**	oleine:	**olein**
chloride:	**chlorid**	orcine:	**orcin**
chlorine:	**chlorin**	oxide:	**oxid**
cinchonine:	**chinchonin**	palmitine:	**palmitin**
cocaine:	**cocain**	paraffine:	**paraffin**
cyanide:	**cyanid**	pectine:	**pectin**
dextrine:	**dextrin**	pepsine:	**pepsin**
emulsine:	**emulsin**	phosphide:	**phosphid**
ergotine:	**ergotin**	phosphine:	**phosphin**
excretine:	**excretin**	piperine:	**piperin**
fibrine:	**fibrin**	pyroxyline:	**pyroxylin**
fluoride:	**fluorid**	quercitrine:	**quercitrin**
fluorine:	**fluorin**	quinine:	**quinin**
gelatine:	**gelatin**	salicine:	**salicin**

saponine:	**saponin**	sulphide:	**sulfid**
selenide:	**selenid**	sulphite:	**sulfite**
silicide:	**silicid**	sulphur:	**sulfur**
solanine:	**solanin**	sulphuric:	**sulfuric**
stearine:	**stearin**	sulphurous:	**sulfurous**
stibine:	**stibin**	telluride:	**tellurid**
strychnine:	**strychnin**	vanilline:	**vanillin**
sulphate:	**sulfate**	xanthine:	**xanthin**

IMPROVED SPELLINGS OF NAMES OF PLACES AND PEOPLES.

The United States Board on Geographic Names, to whom is referred all disputed spellings of names of places and peoples, and whose decisions are obligatory on the Post-Office and other departments of the Government, has recommended the spellings found below. They do not exhaust the list, but are given as examples. It may be said that the Royal Geographical Society, of London, has made quite the same recommendations, and that they have been largely or wholly adopted in "The Century Cyclopedia of Names" and by "A Standard Dictionary."

The spellings recommended are in the second column.

Amoor:	**Amur**
Bayreuth:	**Baireuth** (Bavaria)
Bedouin:	**Bedawin**
Behring:	**Bering**
Beloochistan:	**Baluchistan**
Beyrout, etc.:	**Beirut** (Syria)
Bhootan:	**Bhutan**
Blaine:	**Blain** (Pennsylvania)
Boone:	**Boon** (Michigan)
Brahmapootra:	**Brahmaputra**
Cameroons:	**Kamerun** [not R. G. S.]
Cañon City:	**Canyon** (Colorado)
Carankaway:	**Karankawa** (Texas)
Carquinez Strait:	**Karquines Strait** (California)
Cashmere:	**Kashmir**
Centre Port:	**Centerport** (Pennsylvania)
Chaffin's Bluff:	**Chafin Bluff** (Virginia)
Chili:	**Chile** (Republic of)
Congo:	**Kongo** [not R. G S.]
Corea:	**Korea** [not U. S. B. G. N.]
Dakotah:	**Dakota** (Iowa)
Elco:	**Elko** (South Carolina)
Emmett:	**Emmet** (Nebraska)
Erzeroum, etc.:	**Erzerum**
Esbon:	**Ezbon** (Kansas)
Feejee:	**Fiji**
Foochow, etc:	**Fuchau**
Forrestville:	**Forestville** (New York)
Golovine Sound:	**Golovin Sound** (Alaska)
Guilford:	**Gillford** (Minnesota)
Hayti:	**Haiti**
Hindoo Koosh:	**Hindu Kush**
Howe:	**How** (Wisconsin)
Islesborough:	**Islesboro** (Maine)
Joppa, etc.:	**Yafa** (Palestine)
Loo Choo:	**Luchu**
Mantchooria:	**Manchuria**
Massowah, etc.:	**Massaua**
Mojave:	**Mohave** (Arizona and California)
Pittsburgh:	**Pittsburg** (Pennsylvania)
Pribylov Islands:	**Pribilof Islands**
Saghalien:	**Sakhalin**
Scinde, etc.:	**Sind**
Somauliland:	**Somaliland**
Soudan:	**Sudan**
Suakim, etc.:	**Sawakin**
Thibet:	**Tibet**
Tokio:	**Tokyo** (Japan)
Vineland:	**Vinland** (Wisconsin)
Wood's Holl:	**Woods Hole** (Massachusetts)
Yakoutsk:	**Yakutsk**

ROOTS AND DERIVATIONS.

When the English language was young, and while still uninfluenced by other languages, it had the power of growing words within itself; that is, of building new words upon its native roots. All words so grown or built had, and have, a family likeness. Take byrnan, *to burn,* as an example. This root gives us brimstone (burnstone); brown (burnt color), brunt (heat or shock of battle), brand (burnt in, also a piece of wood on fire), brindle (dark color on a gray ground, as if branded).

This power of English to grow its own words ceased after the Norman conquest (1066). When a new word was needed, after that period, it was found handier to take an old and somewhat ready-made word from the French (Norman), Latin or Greek, and give it a place in our language. It is well, however, to keep up acquaintance with those pure English words which grew upon our own native roots, and which owe nothing to other languages; such, for instance, as are found below; the same being chiefly due to Meiklejohn's "English Language."

I.—ENGLISH ROOTS AND DERIVATIONS.

Ac-an, *oak*, gives us acorn, Acton.
Bac-an, to *bake*—baker, baxter (female baker), batch.
Ban-a, a *slayer*—bane, baneful, henbane.
Bead-an, to *pray*—bedesman, beadle, bead.
Beat-an, to *strike*—beat, bat, battle, beetle, batter.
Beorg-an, to *shelter*—bury, burrow, burgh, harbor, harbinger
Ber-an, to *bear*—bear, bier, bairn, birth, brood, brother, breed, bird, burden, barrow.
Bét-an, to *make good*—better, best, boot (to boot).
Bind-an, to *bind*—band, bond, bondage, bundle.
Bit, to *bite*—bit, beetle, bait, bitter.
Blaw-an, to *puff*—bladder, blain, blast, blister, blot, bloat.
Blow-an, to *blossom*—blow, bloom, blossom, blood, blade.
Brec-an, to *break*—break, breakers, brake, bracken, breach, brick, brook, brittle.
Breow-an, to *brew*—brew, brewer, broth, bread.
Bug-an, to *bend*—bow, elbow, bough, bight.
Byrn-an, to *burn*—burn, brown, brimstone, brand, brandy, brindled.
Catt, a *cat*—catkin, kitten, caterpillar, caterwaul.
Ceapi-an, to *buy*—cheap, cheapen, chop, chap, chapman, chaffer.
Ceron-an, to *produce*—kin, kindred, kind, kindle.
Ceow-an, to *chew*—chew, cheek, cud.
Cleov-an, to *split*—cleave, cleaver, cleft, clover (split grass).
Clifi-an, to *stick to*—clip, claw, cleave (together).
Cnaw-an, to *know*—ken, know, knowledge.
Cnot-ta, a *knot*—knot, knit, net.
Cunn-an, to *know,* be *able*—can, con, cunning, uncouth.
Cweth-an, to *say*—quoth, bequeath.
Cwic, *alive*—quick, quicken, quickset, quicksilver.
Dael-an, to *divide*—deal, dole, dale, dell.
Dem-an, to *judge*—deem, doom, doomsday, kingdom.
Deor, *dear*—dearth, darling, endear.
Doan, to *act*—do, don, doff, deed.
Drag-an, to *draw*—drag, draw, dray, draft, drain, dredge, draggle, drawl.
Drif-an, to *push*—drive, drove, drift, adrift.

Drige, *dry*—dry, drought, drugs (dried plants).
Drinc-an, to *soak*—drink, drench.
Drip-an, to *drip*—drip, drop, droop, dribble, driblet.
Far-an, to *go*—far, fare, welfare, ferry, ford.
Feng-an, to *catch*—fang, finger, new fangled.
Feówer, *four*—farthing, firkin, fourteen, forty.
Fleóg-an, to *flee*—fly, flight, flea, fledged.
Fleót-an, to *float*—float, fleet, afloat, flotsam.
Fód-a, *food, feed*—food, fodder, foster, father, forage.
Freòn, to *love*—friend, friendship, Friya (goddess of love).
Gal-an, to *sing*—gale, yell, nightingale.
Gang-an, to *go*—gang, gangway, ago.
Gnag-an, to *bite*—gnaw, gnat, nag (to tease).
Graf-an, to *dig, cut*—grave, groove, graft, engrave, carve.
Grip-an, to *seize*—grip, gripe, grasp, grab, grope.
Gyrd-an, to *surround*—gird, girdle, garden, yard, vineyard.
Hael-an, to *heal*—hale, holy, hallow, health, hail, whole, wholesome, wassail.
Hebb-an, to *raise*—heave, heavy, heave-offering, heaven.
Hlaf, *bread, loaf*—lord, loaf, lady (hlaf-kneader).
Lieg-an, to *live*—lie, lay, layer, lair, outlay.
Loda, *guide*—lead, lodestar, lode-stone.
Mag-an, to *be able*—may, main, might, mighty.
Maw-an, to *cut*—mow, math, aftermath, mead, meadow (mown spot).
Mon-a, *moon*—month, moon, moonshine.
Nasu, *nose*—nose, nasal, nostril, nozzle.
Penn-an, to *shut up*—pen, pin, pound, impound.
Pic, *point*—pike, peak, picket, pike (a fish), peck, pecker.
Reáf, *clothing, spoil*—rob, robber, reave, bereave, reever, robe.
Sceap-an, to *form*—shape, ship, scape, (as in landscape).
Sceót-an, to *throw*—shoot, shot, shut, sheet, shutter, shuttle, scud.
Scer-an, to *cut*—shear, share, sheer, shire, scar, scare, score, sharp, short, shirt, skirt, shred, scrip, scrap.
Schuf-an, to *push*—shove, shovel, shuffle, scuffle, sheaf, scoop.
Sett-an, to *set*—set, seat, settle, saddle.
Slag-an, to *strike*—slay, slaughter, slog, sledge.
Slip-an, to *slip*—slop, slipper, sleeve.
Snic-an, to *crawl*—sneak, snake, snail.
Stearc, *stiff*—stark, strong, string, strength, strangle.
Stede, *place*—stead, instead, homestead, steady, steadfast, bestead.
Stic-i-an, to *stick*—stick, stitch, stake, stock, stockade, stock-still.
Stig-an, to *climb*—stair, stile, stirrup, sty.
Styr-an, to *direct*—steer, stern, steerage.
Sweri-an, to *declare*—swear, answer, forswear.
Taec-an, to *teach*—teach, teacher, token, taught.
Tell-an, to *account*—tell, tale, talk, toll, teller.
Teoh-an, to *draw*—tow, tug.
Thaec, *roof*—thatch, deck.
Tred-an, to *walk*—tread, treadle, trade, tradesman.
Truwa, *good faith*—true, truth, troth, betroth.
Twá, *two*—twain, twelve, twenty, twig, twine, twist.
Wana, *lacking*—wan, wane, want, wanton.
Wef-an, to *weave*—weaver, web, woof.
War, *defense*—war, wary, aware, ward, guard, guardian.
Wit-an, to *know*—wit, wise, wisdom, wistful, witness.
Wraest-an, to *wrest*—wrest, wrestle, wrist.

II.—Latin Roots and Derivations.

Here is found a list of the Latin root-words from which are derived the more important English words of common speech. Some of them are not derived directly from the Latin, but indirectly through the French, which is a Latin language. Observe that the genitive case of many Latin nouns forms the real basis of the English derivative. When so, such genitive will be found in parentheses. Observe also that the participles of verbs, where the verbs are irregular, are given in parentheses.

Acer (acris), ***sharp***, gives us acrid, acrimony, vinegar, eager.
Ædes, a ***building***, gives us edifice, edify.
Æquus, ***equal***—equality, equator, equation, equity, adequate, equinox, etc.
Ager, *field*—agrarian, agriculture, peregrinate.
Ago (actum), to *act*—act, agent, agile, agitate.
Alter, *other*—alternate, altercation.
Altus, *high*—altar, altitude, alto, exalt.
Amo, *I love*—amiable, amity, amorous.
Angulus, *corner*—angle, angular, triangle, etc.
Anima, *life*—animal, animate, animation.
Animus, *mind*—animadvert, magnanimous, unanimous, equanimity.
Annus, *year*—annual, biennial, anniversary, perennial.
Aqua, *water*—aquatic, aqueous, acqueduct, aquarium.
Arcus, *bow*—arc, arch, arcade.
Ardeo, *burn*—ardent, ardor, arson.
Ars (artis), *art*—artist, artisan, artifice.
Audio, *hear*—audience, audible, auditorium.
Augeo (auctum), *increase*—author, augment, augmentation.
Barba, *beard*—barber, barb, barbel.
Bellum, *war*—belligerent, bellicose, rebel, rebellious.
Bis, *twice*—bicycle, bisect, bissextile, biscuit (twice baked).
Brevis, *short*—brevity, brief, abbreviate, breviary, abridge.
Cædo (cæsum), *cut*—decide, excision, precise.
Candidus, *white*—candid, candidate, candle.
Cano (cantum), *sing*—chant, cant, canticle, incantation.
Capio (captum), *take*—capacity, captive, accept.
Caput, *head*—cape, capital, captain, chapter.
Caro (carnis), *flesh*—carnal, carnival, carnivorous.
Cavus, *hollow*—cave, cavity, excavate, concave.
Centrum, *point*—centre, excentric, centripetal.
Centum, *hundred*—cent, century, centurion.
Cito, *call*—citation, recite, excite, incite.
Civis, *citizen*—civil, civic, civilize, civilian, city, citizen.
Clamo, *shout*—claim, clamor, proclaim, reclaim.
Clarus, *clear*—claret, clarion, clarify, declare.
Claudo (clausum), *shut*—clause, close, exclude.
Clino, *bend*—decline, incline, recline.
Colo (cultum), *till*—agriculture, cultivate, culture.
Cor, *heart*—cordial, courage, record, discord.
Corona, *crown*—coroner, coronet, coronation, corolla.
Corpus, *the body*—corps, corpse, corporation, corpulent,
Credo, *believe*—credible, credence, creed, creditor.
Creo, *create*—create, creation, creature, recreation.
Cresco, *grow*—increase, decrease, increment.
Crux (crucis), *cross*—crucial, crucifix, crucify, cruise,
Culpa, *fault*—culpable, culprit, exculpate, inculpate.
Cura, *care*—curate, curator, accurate, secure, incurable.
Curro (cursum), *run*—course, current, excursion, cursory.
Decem, *ten*—December, decimal, decimate.
Dens (dentis), *tooth*—dental, dentist, indent, trident.
Deus, *God*—deity, deify.
Dico, *say*—dictionary, dictate, verdict.
Dies, *day*—diary, diurnal, meridian.
Dignus, *worthy*—dignify, dignity, indignant.
Do (datum), *give*—date, data, donor.
Doceo (doctum), *teach*—doctor, doctrine, docile.
Dominus, *lord*—dominion, dominant, domineer, dame.
Domus, *house*—domicile, domestic, dome.
Dormio, *sleep*—dormant, dormitory, dormer (window).
Duco (ductum), *lead*—duke, education, induct, product.
Duo, *two*—double, dual, duel, duplicate.
Eo (itum), *go*—circuit, exit, transit.
Erro, *wander*—err, error, aberration.
Facio (factum), *make*—fact, fashion, faction, factor, manufacture.
Fero (latum), *carry*—infer, refer, suffer, defer, relative.
Fido, *trust*—confide, diffident, infidel.
Filum, *thread*—fillet, enfilade, filament, file, profile,
Finis, *end*—finite, infinite, finish.
Firmus, *firm*—affirm, infirm, confirm.
Flecto (flexum), *bend*—inflect, flexible.
Flos (floris), *flower*—flora, floral, florid.

Fluo (fluxum), *flow*—fluent, fluid, flux, affluent.
Folium, *leaf*—foliage, foil, portfolio, trefoil.
Forma, *form*—form, formal, reform, conform.
Fortis, *strong*—force, fortify, fortitude, fortress.
Frango (fractus), *break*—fragment, fragile, infraction.
Frater, *brother*—fraternal, friar, fratricide.
Frons (frontis), *forehead*—front, frontal, frontier, frontispiece.
Fugio, *flee*—fugitive, refuge, subterfuge.
Fundo (fusum), *pour out*—fount, foundry, funnel, fusible, diffusion.
Fundus, *bottom*—founder, foundation, profound.
Gens (gentis), *race, nation*—gentle, gentile, genteel.
Gradus, *step*—grade, degrade, graduate, gradient.
Gratia, *favor*—grateful, gratitude, gratis.
Gravis, *heavy*—grave, gravity, grief.
Habeo (habitum), *have*—habit, hability (ability).
Homo, *man*—homage, human, humane.
Ignis, *fire*—igneous, ignite.
Impero, *command*—imperative, imperial, empire, emperor.
Insula, *island*—island, insular, peninsular.
Jacio (jectum), *throw*—inject, project, object, subject.
Judex (judicis), *judge*—judicial, judgment.
Jungo (junctum), *join*—junction, junta, juncture, adjunct.
Jus (juris), *right*—justice, jury, injury.
Labor (lapsus), *slide, fall*—lapse, collapse, relapse.
Laus (laudis), *praise*—laud, laudable, laudation.
Lego (lectum), *read, collect*—lecture, legible, collect, legend, select, elector.
Lego (legatum), *send*—delegate, legacy, legate.
Levis, *light*—levity, lever, leaven, relief, alleviate.
Lex, *law*—legal, legitimate, legislate.
Liber, *free*—liberty, liberal, libertine.
Liber, *book*—library, librarian.
Ligo, *bind*—liable, ligament, religion, oblige, obligatory.
Litera, *letter*—literal, literary, literature.
Locus, *place*—local, dislocate, locomotion.
Loquor (locutus), *speak*—loquacity, elocution, colloquy.
Ludo (lusum), *play*—elude, illusion, ludicrous, interlude.
Lumen, *light*—luminary, luminous, illuminate.
Luna, *moon*—lunar, lunatic, sublunray.
Luo (lutum), *wash*—ablution, dilute, diluvium.
Lux, *light*—lucid, pellucid, elucidate.
Magnus, *great*—magnitude, magnify, magnificent, magnanimous.
Malus, *bad*—malady, malice, malaria.
Maneo, *remain*—mansion, manse, permanent.
Mare, *sea*—marine, mariner, maritime.
Mater, *mother*—maternal, matron, matriculate, matrix, matrimony.
Maturus, *ripe*—mature, immature, premature.
Medius, *middle*—medium, mediate.
Memor, *mindful*—memory, memoir, commemorate.
Mens (mentis), *mind*—mental, demented.
Mergo (mersum), *dip, sink*—merge, emerge, immersion, emergency.
Miles, *soldier*—militia, military, millitant.
Miror, *admire*—mirage, miracle, admirable.
Mitto, *send*—missile, mission, remit.
Modus, *measure*—mood, modify, model, moderate.
Moneo, *remind*—monition, monitor, monument.
Mons (montis), *mountain*—mount, amount, promontory.
Mors (mortis), *death*—mortal, mortify, immortal.
Moveo (motum), *move*—motive, motor, mobile.
Multus, *many*—multitude, multiply, multiple.
Nascor (natus), *be born*—natal, nature, nativity.
Navis, *ship*—naval, navy, navigate.
Necto (nexum), *bind*—annex, connect.
Nego (negatum), *deny*—negative, negation.
Noceo, *injure*—noxious, innocent, obnoxious.
Nomen, *name*—nominal, nominate, nomenclature.
Novus, *new*—novel, novelty, renovate.
Nox, *night*—nocturnal, equinox.
Nudus, *naked*—nude, denude, nudation.
Numerus, *number*—numeration, enumerate, numerable.
Octo, *eight*—October, octagon, octave.
Omnis, *all*—omnibus, omnipotent, omniverous.
Opis (operis), *work*—opera, operate, operative.
Ordo (ordinis), *order*—ordinary, ordinal, ordinance.
Oro, *pray*—orator, oration, oratorio.
Pando (passum), *spread*—pace, expand, compass.
Pars, *part*—parcel, partner, particle, partition.
Pasco (pastum), *feed*—pastor, pasture, repast.
Pater, *father*—paternal, paternity, patrimony.
Patior (passus), *suffer*—passion, passive, impatient.
Pax, *peace*—pacific, pacify.
Pello (pulsum), *drive*—expel, repel, expulsion.
Pendeo (pensum), *hang*—append, depend, pendant, suspend.
Pes (pedis), *foot*—pedal, pedestrian, impede, biped.
Planus, *level*—plain, plane, plan, explain.
Pleo (pletum), *fill*—complete, supplement.
Pœna, *punishment*—penal, penance, penalty, penitent.
Pono (positum), *place*—position, post, deponent.
Porto, *carry*—export, report, deportment.
Primus, *first*—primary, primitive, prince.
Probo, *prove*—probe, probable, approve, improve.
Proprius, *one's own*—proper, propriety, property.
Quatuor, *four*—quart, quarter, quadrant.
Radix, *root*—radical, radish, eradicate.
Rego (rectum), *rule*—regal, regent, rector, regulate.
Rideo (risum), *laugh*—deride, ridiculous, risible.
Rota, *wheel*—round, rotary, rotund, rotation.
Rumpo (ruptum), *break*—rupture, eruption, corruption.
Sacer, *sacred*—sacrament, sacrilege, sacristan (sexton).
Salio (saltum), *leap*—sally, assail, salmon.
Sanctus, *holy*—saint, sanctify, sanctuary.
Scio, *know*—science, omniscience, conscience.
Scribo (scriptum), *write*—scribe, scribble, scripture.
Seco (sectum), *cut*—section, dissect, insect.
Sedeo (sessum), *set*—sit, sediment, subside.
Sentio, *feel*—sense, sentiment, sensual.
Septem, *seven*—September, septenary, septemvir.
Sequor (secutus), *follow*—sequel, sequence, consequence.
Servio, *serve*—servant, service, sergeant.
Signum, *sign*—signify, designate, ensign.
Similis, *like*—similar, similitude, resemble.
Socius, *companion*—social, society, associate.
Solus, *alone*—sole, solo, solitude.
Specio (spectum), *see*—aspect, spectator, spectre.
Spiro, *breathe*—aspire, inspire, conspire.
Statuo, *set up*—statue, stature, statute.
Struo (structum), *build*—structure, construct, obstruct.
Sumo (sumptum), *take*—assume, consume.
Tango (tactum), *touch*—contact, tangible, contagious.
Tempus (temporis), *time*—temporal, contemporary.
Tendo (tensum), *stretch*—attend, tense, tendon.
Teneo (tentum), *hold*—tenant, tenet, tendril.
Terminus, *boundary*—term, terminate.
Terra, *earth*—terrestrial, subterranean.
Terreo, *frighten*—deter, terror, terrible.
Texo (textum), *weave*—text, textile, texture.
Timeo, *fear*—timid, timidity, timorous.
Torqueo (tortum), *twist*—torment, torture, contort.
Traho (tractum), *draw*—tract, traction, contract.
Tres, *three*—trefoil, trio, trinity.
Tribuo, *give*—tributary, tribute, contribute.
Tumeo, *swell*—tumor, tumult, tomb.
Unus, *one*—uniform, union, unit, unite.
Urbs, *city*—urbane, urban, urbanity.
Valeo, *be strong*—valiant, valor, prevail.
Vanus, *empty*—vain, vanity, vanish.
Venio, *come*—advent, convene, venture.
Verbum, *word*—verb, adverb, proverb, verbal.
Verto (versum), *turn*—convert, divert, versatile
Verus, *true*—verify, verity, verdict, veracious.
Video (visum), *see*—vision, visit, provision, revision.
Vinco victum), *conquer*—victor, victory, convict.
Vivo (victum), *live*—vivid, revive, survive.
Voco (vocatum), *call*—vocal, vocation, vowel.
Volvo (volutum), *roll*—revolve, revolution, volume.
Vulgus, *common*—vulgar, vulgate, divulge.

III.—Greek Roots and Derivations.

Agon, *contest*—agony, agonize, antagonist.
Angelos, *messenger*—angel, evangelist, evangelical.
Anthropos, *man*—anthropology, philanthropist.
Archos, *beginning, rule*—archaic, monarch, archbishop.
Aster, *star*—astronomy, astrology, asteroid.
Atmos, *vapor*—atmosphere, atmology.
Autos, *self*—autocrat, autograph, automobile.
Bapto, *dip*—baptise, baptist, baptistry.
Biblos, *book*—Bible, biblicist, bibliography.
Bios, *life*—biography, biology, amphibious.
Cheir, *hand*—chirography, chiropodist, chirurgeon (surgeon).
Chole, *bile*—choler, melancholy, cholera.
Chrio, *anoint*—Christ, chrism.
Chronos, *time*—chronicle, chronology, chronic, chronometer.
Deka, *ten*—decade, decagon, decalogue, decagram.
Demos, *people*—democrat, endemic, epidemic.
Doxa, *opinion*—doxology, orthodox, dogma, dogmatic.
Drao, *do*—drama, dramatic, dramaturgy.
Dunamis, *power*—dynamics, dynamite, dynamo.
Eidos, *form*—conchoid, spheroid, kaleidoscope.
Eikon, *image*—icon, iconograph, iconoclast.
Electron, *amber*—electric, electricity, electrotype, electroplate.
Eu, *well*—eucharist, euphony, evangel.
Gamos, *marriage*—nonogamy, bigamy, misogamist.
Ge, *earth*—geography, geology, geometry.
Grapho, *write*—graphic, biography, telegraph.
Hecaton, *hundred*—hectogram, hecatomb, hectograph.
Hieros, *sacred*—hierarchy, hieroglyphic, hierophant.
Hippos, *horse*—hippodrome, hippopotamus, hippotomy.
Hodos, *way*—exodus, method, period.
Homos, *same*—homogeneous, homologous, homeopathic.
Hudor, *water*—hydraulics, hydrophobia, hydrogen.
Klino, *tend*—clinic, climate, climax, climacteric.
Kosmos, *order, world*—cosmos, cosmopolitan, cosmogony.
Kuklos, *circle*—cycle, cyclone, cycloid, cyclopedia.
Lego, *say*—lexicon, eclectic, lexicology.
Logos, *speech*—logic, geology, dialogue, theology.
Meter, *mother*—metrotomy, metropolis, metropolitan.
Metron, *measure*—meter, diameter, thermometer.
Monos, *alone*—monarch, monogram, monastery.
Morphe, *shape*—metamorphic, amorphous, metamorphose.
Naus, *ship*—nautical, nausea, Argonaut.
Nomos, *law*—Deuteronomy, astronomy, autonomy.
Oikos, *house*—economy, economic.
Onoma, *name*—anonymous, synonymous.
Orthos, *right*—orthodox, orthography, orthoëpy.
Pan, *all*—pantheist, panoply, panorama, pantomime.
Pathos, *feeling*—pathos, pathetic, sympathy.
Pente, *five*—Pentecost, pentateuch, pentagon.
Petra, *rock*—Peter, petrify, petrel, petroleum.
Phileo, *love*—philosophy, philharmonic, philanthropy.
Phone, *sound*—euphony, phonic, symphony, telephonic.
Phos, *light*—phosphorescent, photograph, photometer, phosphorus.
Polis, *city*—Constantinople, metropolis, police.
Polus, *many*—polyandry, polygamy, polytheist.
Pous, *foot*—tripod, antipode, gasteropod.
Protos, *first*—protoplasm, prototype, protocol.
Pur, *fire*—pyre, pyrites, pyrotechnic.
Rheo, *flow*—rhetoric, rheumatism, catarrh.
Skopeo, *see*—episcopes (bishop), telescope, microscope.
Sophia, *wisdom*—philosophy, theosophy, sophist.
Stello, *send*—epistle, apostle.
Stratos, *army*—strategy, strategem, strategic.
Tete, *end, distant*—telegraph, telephone, telescope.
Theos, *god*—theist, theology, theocracy.
Therme, *heat*—thermal, isothermal, thermometer.
Treis, *three*—trinity, triangle, tripod, trigonometry.
Tupos, *impression*—type, typography, stereotype.
Zoon, *animal*—zoology, zoophyte, zootomy.

WORDS DERIVED FROM THE NAMES OF PERSONS, PLACES, ETC.

Argosy, from Jason's ship "Argo," in which he sailed in search of the Golden Fleece.
Assassin, from the Syrian word *haschisch,* a drug prepared from hemp, to whose use a fanatical sect was addicted.
Atlas, from Atlas, a Titan god, who was pictured as strong enough to bear the world on his shoulders.
Bacchanalian, from Bacchus, Roman god of wine.
Boycott, from Capt. Boycott, an Irish land agent, with whom his neighbors refused to deal.
Chimera, from Chimæra, a Greek monster, half goat, half lion.
Cravat, from the Croats of Croatia, who supplied the Austrian army with a certain kind of neck-ties.
Dahlia, from Dahl, a Swedish botanist.
Dunce, from Duns Scotus, whose followers were looked upon as dunces.
Epicure, from Epicurus, a Greek philosopher, said to have been fond of good living.
Fauna, the animals of a country; from Faunus, a Roman god of the woods and country.
Flora, the plants of a region, from Flora, Roman goddess of flowers.
Galvanism, from Galvani, an Italian student of anatomy, who discovered, by experiments on frogs, that animals possess electricity.
Gordian, descriptive of an intricate knot tied by Gordius, King of Phrygia. No one could untie it. Word went abroad that whoever untied it would take the kingdom. Alexander the Great tried to untie it, but failed, whereupon he cut it with his sword and seized the kingdom.
Guillotine, a French beheading instrument, invented by Dr. Guillotin during the French Revolution.
Hansom, a cab, named from Hansom, the inventor.
Hector, to talk braggingly, from Hector, a Trojan leader, given to big talk.
Hermetically, sealed so tightly as to exclude air; from Hermes, a Greek god, fabled as the inventor of chemistry.
Jacobin, a French revolutionist. The revolutionists met in the hall of the Jacobin Friars, Paris.
Jacobite, a follower of Jacobus (James II), who was driven from the English throne in 1688.
January, from the Roman god Janus, with two faces, looking to the past and future.
Jovial, that happy disposition supposed to belong to one born under the influence of the planet Jupiter. (Jove).
July, from Julius Cæsar, who was born in this month.
Lazaretto, hospital or pesthouse, from Lazarus, the beggar who sat at the gate of Dives.
Lynch, Lynch-Law, so called from Judge Lynch, of Tennessee, who made short work of trials and punishments.
Macadamize, from its inventor, John Macadam, of England (1827). He was given £10,000 by the Government for his plan of making roads out of broken stone which cohered in a solid mass.
March, so called from Mars, Roman god of war.
Martinet, a military disciplinarian of severe turn; from General Martinet, of France.
Mausoleum, a costly tomb; from Mausolus, King of Caria, Asia Minor, to whom his widow erected an elegant burial-chamber.
Mentor, adviser; from Mentor, teacher of Telemachus, son of Ulysses.
Mercurial, that gay and light disposition of one born under the influence of the planet Mercury.
Ohm, the standard measure of electrical resistance; so called in honor of the German electrician G. S. Ohm.
Panic, sudden terror; from Pan, god of shepherds and flocks, who sometimes appeared suddenly to travelers.
Parrot is the English word Peter (Stone) in its French form of Pierre or Peterkin (little Peter).

Petrel, sea bird; a diminutive of the English word Peter (Stone), probably so called in allusion to St. Peter's walking on the sea. (Matt. xvi, 29.).

Phaeton, a kind of carriage; from Phaëton, son of Helios (Sun). He is fabled as having obtained permission to drive the chariot of the Sun for one day, in doing which he would have set the world on fire, had he not been struck with a thunderbolt by Jupiter and hurled headlong into the river Po.

Philippic, acrimonious invective; from the orations of Demosthenes, the Athenian orator, against Philip of Macedon.

Plutonic, igneous, pertaining to the rocky interior of the earth; from Pluto, the dark and gloomy god of the lower world.

Protean, many-shaped; from Proteus, a sea-god in the service of Neptune, who assumed different shapes at will.

Quixotic, like Don Quixote; romantic to extravagance. Don Quixote is the hero of the national Spanish romance by Cervantes. He tilted with windmills and engaged in many other ludicrous feats.

Simony, the crime of buying and selling ecclesiastical preferments; from Simon Magus, who wished to purchase the power of conferring the holy spirit.

Stentorian, loud-voiced; from Stentor, a herald in Homer's Iliad, noted for his very loud voice.

Tantalize, to tease or torment; from Tantalus, a Phrygian king, who was punished in Hades by being placed in water up to his chin, but with which he could not quench his thirst, and by branches, laden with fruits, over his head, which receded every time he reached for them.

Tawdry, fine, showy, but lacking taste; said to be corrupted from St. Audrey and implying, therefore, originally bought at St. Audrey's fair, where all sorts of laces and toys were annually sold.

Volcano, the supposed chimney of a workshop of Vulcan, Roman god of fire and smithing.

Volt, the unit of electro-motive force; named from Volt, an Italian electrician.

Watt, the unit of electrical power; named from James Watt, a distinguished scientist and mechanician.

BUSINESS WORDS AND PROPER NAMES.

Note—By courtesy of the publishers these lists of words are taken from "Alwood's Speller."

Ab'stract
Ab stract'
Ac cept'ance
Ac com'mo da'tion
Ac count'ant
Ac knowl'edg ment
Ad min'is tra'tion
Ad vis'a ble
Af'fi da'vit
Al low'ance
An'a lyze
Ar'bi tra ry
Ar'ti cles
As'sign ee'
As sist'ant
Au'dit
Au'di tor
Aux il'ia ry
Bal'ance
Bank'a ble
Bo'nus
Busi'ness
Can'celed
Cap'i tal
Cart'age
Cer tif'i cate
Cer'ti fy
Chat'tel
Cir'cu la'tion
Col lat'er al
Com'merce
Com mer'cial
Com mis'sion
Con'sign ee'
Con sign'ment
Con sign'or
Co part'ner ship
Cor'po ra'tion
Cou'pon
Cred'it or
Cur'rent
Debt'or
Def'i cit
De pos'i tor
Dif'fer ence
Di rect'or
Dis'count
Dis'so lu'tion
Div'i dend
Draw ee'
Due' bill'
Dun'ning
Ex change'a ble
Ex ec'u tor
Ex pense'
Ex plan'a tory
Ex ten'sion
Fil'ing
Fi nan'cial
Fin'an cier
Fis'cal
For'ger y
Fran'chise
Guar an tee'
Guar'an ty
In'ci den'tal
In'di vid'u al
In sol'ven cy
In stall'ment
In'ven to ry
Is'sued
I'tem ized
Jour'nal i zing
Lease
Li'a bil'i ties
Liq'ui date
Man'a ger
Ma tu'ri ty
Mem'o ran'da
Mer'chan dise
Mort'gage
Mu'ti late
Out'lawed'
O'ver draft
O'ver due
Pay'a ble
Pay ee'
Per'son al
Pre ferred'
Prin'ci pal
Prin'ci ple
Prom'is so ry
Pro mot'ing
Pro ra'ta
Pur'chase
Re bate
Re ceipt'
Re ceiv'a ble
Re course'
Re demp'tion
Reg'is ter
Re mit'tance
Re mit'ter
Re new'al
Rep're sent'a tive
Re serve'
Re sourc'es
Sched'ule
Sig'na ture
Sol'ven cy
Stor'age
Sum'mary
Sun'dries
Sur'plus
Sus pense'
Syn'di cate
Tar'iff
Tic'kler
Trans ac'tion
Trans fer'ring
Trans'por ta'tion
Treas'ury
Val'id
Vouch'er
Whole'sale'
With draw'al

Common Words Frequently Misspelled.

Ab bre'vi ate
Ab'er ra'tion
Ab'sence
A cad'e my
Ac cede'
Ac ced'ing
Ac cept'a ble
Ac com'mo date
Ac com'mo da'tion
Ac com'pa ny
Ac'cu ra cy
A chieve
Ac quaint'ance
Ad vis'a ble
Af'fi da vit
Ag'gre gate
Al'ge bra
Al le'giance
Al though'
Al'to geth'er
A mel'io rate
An nounce'ment
A non'y mous
An tic'i pate
Anx'ious
Ap par'ent
Ar raign'
Ar tis'tic
As cend'
As sist'
As sist'ance
As sist'ant
Au'di ence
Aus pi cious
A void'
Bal loon'
Bat tal'ion
Be lieve'
Ben'e fi'cial
Be sie'ger
Bi'cy cle
Buoy'ant
Busi'ness
Can'celed
Can'vas
Can'vass
Car'i ca ture
Cat'a ract
Chap'er on
Cheer'ful
Chief
Cloth'ier
Cof'fee
Co'in cide'
Col lec'tion
Col'lege
Col li'sion
Com mis'sion
Com mu'ni ty
Com par'a tive
Com'pe tent
Com plete'ness
Com pli'ance
Con cede'
Con ced'ing
Con ces'sion
Con cil'i ate
Con'nois seur'
Con'science
Con'sci en'tious
Con'scious
Con sist'ent
Con sol'i date
Con'sul
Con ta'gious
Con ven'ience

Con ven'ien cy
Con ven'ient
Con vert'i ble
Co öp'er a'tion
Cor'po ra'tion
Coun'cil
Coun'sel
De cease'
De ceive'
De fault'er
De fi'cien cy
De fi'cient
Deign
De lin'quent
De scrip'tion
Des'ert
De sir'ous
Des sert'
De vel'op ment
De vice'
De vise'
Dic'tion a ry
Dif'fer ence
Dis'ap pear'
Dis'ap point'ment
Dis burse'
Dis cern'
Dis ci'ple
Dis ease'
Di vis'i ble
Dye'ing
Dy'ing
Ec cle'si as'tic al
E con'o mize
Eight'i eth
El'i gi ble
Em bar'rass
Em bar'rass ment
E mer'gen cy
En large'ment
En thu'si as'tic
E nu'mer ate
Er ro'ne ous
Et'i quette
Ex ceed'
Ex cres'cence
Ex hil'a rate
Ex ist'ence
Ex pend'i ture
Ex pe'ri ence
Ex trav'a gant
Fa mil'iar
Fem'i nine
Fic ti tious
For bear'ance
For'ci ble
Fore bode'
For'feit
For'tieth
Fraud'u lent
Friv'o lous
Fun'da men'tal
Hand'ful
Hand'ker chief
Hei'nous
Hol'i day
Hope'ful
Hop'ing
I den'ti ty
Il leg'i ble
Il lit'er ate
Il lu'sion
Im me'di ate ly
In cip'i ent
In com'pe tent
In'con ceiv'a ble
In'con sist'ent
In'con ven'ience
In cred'i ble
In cur'
In def'i nite
In'de pend'ent
In'dis creet'
In'dis pen'sa ble
In dus'tri ous
In el'i gi ble
In'fer ence
In'fin i tes'i mal
In'flam ma'tion
In gen'ious
In still'
In tel'li gi ble
In'ter cede'
In'ter ced'ing
In'ter cept'
In'ter fere'
In'ter rupt
Ir're spon'si ble
Judg'ment
Ju've nile
Li'cense
Lit'er a ture
Loose
Lose
Los'ing
Man'age a ble
Man'u fac'ture
Mar'shal
Mar'tial
Max'i mum
Mem'o ran'dum
Mil'li ner
Mil'li ner y
Min'i mum
Mis'cel la'ne ous
Mis'chiev ous
Mis spell'
Mort'gage
Mor'tise
Mu'ci lage
Nec'es sa ry
Ne ces'si ty
Niece
O be'di ent
Ob lit'er ate
Ob'so lete
Oc ca'sion
Oc ca'sion al ly
Oc cur'rence
O mit'ted
Om'ni bus
Op'er a'tor
Op po'nent
Os'cil late
Out ra'geous
Pan'to mime
Par'al lel
Par'a pher na'li a
Par'tial
Per ceive'
Per ceiv'ing
Per'me ate
Per'mit
Per mit'
Per'se cute
Per sist'ence
Per suade'
Per ver'si ty
Phy sique'
Pic'tur esque'
Pierce
Pin'na cle
Planned
Plan'ning
Pleas'ant
Plu'ral
Pos ses'sion
Pre cede'
Prec'e dent
Pre ced'ing
Pre ferr ed
Prej'u dice
Prep'a ra'tion
Prev'a lence
Prin'ci ple
Pro ceed'
Proc'ess
Pu'er ile
Pur sue'
Pur su'ing
Qual'i fied
Re bel'lious
Re cede'
Re ced'ing
Re ceipt'
Re ceive'
Re ceived'
Re ceiv'er
Re ceiv'ing
Rec'ol lect'
Rec'om mend'
Rec'om men da tion
Re course'
Re cur'rent
Re fer'ring
Re gard'
Re mit'tance
Ren'dez vous
Re prieve'
Re source'
Re spect'a bly
Re spec'tive ly
Re spon'dent
Res'tau rant
Re trieve'
Re view'
Rhet'o ric
Rhyme
Rhythm
Sac'ri lege
Sac'ri le'gious
Sal'e ra'tus
Sanc'tion
Sci'en tif'ic
Se cede'
Se ced'ing
Sec're ta ry
Seine
Seize
Sem'i co'lon
Sep'a rate
Set tee'
Shep'herd
Shrewd
Shriek
Siege
Sieve
Sim'i lar
Sta'tion a ry
Sta'tion er y
Sub sist'ence
Suc ceed'
Suc cess'ful
Su per'flu ous
Su per in tend'ent
Su'per sede'
Sus pense'
Sus pi'cion
Sus'te nance
Syn'di cate
Syn on'y mous
Their
Thor'ough
Tol'er a ble
Trans mis'sion
Treas'ur er
Tu i'tion
Twelfth
Un con'scious
Un nec'es sa ry
U til'i ties
Val'iant
Vil'lain
Void
Yield

States, Abbreviations, and Capitals of States.

Alabama	Ala.	Montgomery.
Arkansas	Ark.	Little Rock.
California	Cal.	Sacramento.
Colorado	Col. or Colo	Denver.
Connecticut	Conn. or Ct.	Hartford.
Delaware	Del.	Dover.
Florida	Fla. or Flor.	Tallahassee.
Georgia	Ga.	Atlanta.
Idaho	Id.	Boise.
Illinois	Ill. or Ills.	Springfield.
Indiana	Ind.	Indianapolis.
Iowa	Io.	Des Moines.
Kansas	Kan. or Kans.	Topeka.
Kentucky	Ken. or Ky.	Frankfort.
Louisiana	La.	Baton Rouge.
Maine	Me.	Augusta.
Maryland	Md.	Annapolis.
Massachusetts	Mass.	Boston.
Michigan	Mich.	Lansing.
Minnesota	Minn.	St. Paul.
Mississippi	Miss.	Jackson.
Missouri	Mo.	Jefferson City.
Montana	Mont.	Helena.
Nebraska	Neb.	Lincoln.
Nevada	Nev.	Carson City.
New Hampshire	N. H.	Concord.
New Jersey	N. J.	Trenton.
New York	N. Y.	Albany.
North Carolina	N. C.	Raleigh.
North Dakota	N. Dak.	Bismarck.
Ohio	O.	Columbus.

Oregon	Ore. or Oreg.	Salem.
Pennsylvania	Pa. or Penn.	Harrisburg.
Rhode Island	R. I.	Providence.
South Carolina	S. C.	Columbia.
South Dakota	S. Dak.	Pierre.
Tennessee	Tenn.	Nashville.
Texas	Tex.	Austin.
Utah	Ut.	Salt Lake City.
Vermont	Vt.	Montpelier.
Virginia	Va.	Richmond.
Washington	Wash.	Olympia.
West Virginia	W. Va.	Charleston.
Wisconsin	Wis.	Madison.
Wyoming	Wyo.	Cheyenne.

Territories and other Provinces.

Alaska	Alas.	Sitka.
Arizona	Ariz.	Phœnix.
District of Columbia	D. C.	Washington.
Guam		Agana.
Hawaiian Islands		Honolulu.
Indian Territory	Ind. Ter. or Ind. T.	
New Mexico	New M.	Santa Fe
Oklahoma	Okla.	Guthrie.
Philippine Islands		Manila.
Porto Rico		San Juan.
Tutuila Islands.		

Leading Cities of United States.

New York, N. Y.
Chicago, Ill.
Philadelphia, Pa.
St. Louis, Mo.
Boston, Mass.
Baltimore, Md.
Cleveland, Ohio.
Buffalo, N. Y.
San Francisco, Cal.
Cincinnati, Ohio.
Pittsburg, Pa.
New Orleans, La.
Detroit, Mich.
Milwaukee, Wis.
Washington, D. C.
Newark, N. J.
Jersey City, N J.
Louisville, Ky.
Minneapolis, Minn.
Providence, R. I.
Indianapolis, Ind.
Kansas City, Mo.
St. Paul, Minn.
Rochester, N. Y.
Denver, Col.
Toledo, Ohio.
Allegheny, Pa.
Columbus, Ohio
Worcester, Mass.
Syracuse, N. Y.
New Haven, Conn.
Paterson, N. J.
Fall River, Mass.
St. Joseph, Mo.
Omaha, Neb.
Los Angeles, Cal.
Memphis, Tenn.
Scranton, Pa.
Lowell, Mass.
Albany, N. Y.
Cambridge, Mass.
Portland, Ore.
Atlanta, Ga.
Grand Rapids, Mich.
Dayton, Ohio.
Richmond, Va.
Nashville, Tenn.
Seattle, Wash.

Leading Foreign Cities.

Europe.

Vienna, Austria-Hungary.
Prague, Austria-Hungary.
Brussels, Belgium.
Antwerp, Belgium.
Constantinople, Balkan States.
Copenhagen, Denmark.
London, England.
Liverpool, England.
Manchester, England.
Paris, France.
Marseilles, France.
Berlin, Germany.
Hamburg, Germany.
Munich, Germany.
Leipzig, Germany.
Belfast, Ireland.
Dublin, Ireland.
Naples, Italy
Milan, Italy.
Rome, Italy.
Amsterdam, Netherlands.
Rotterdam, Netherlands.
Stockholm, Norway and Sweden.
Christiania, Norway and Sweden.
Lisbon, Portugal.
St. Petersburg, Russia.
Moscow, Russia.
Glasgow, Scotland.
Edinburgh, Scotland.
Madrid, Spain.
Barcelona, Spain.
Zurich, Switzerland.

Asia.

Canton, China.
Peking, China.
Tien-Tsin, China.
Calcutta, British India.
Bombay, British India.
Madras, British India.
Tokio, Japan.
Osaka, Japan.

Africa.

Cairo, Egypt.
Alexandria, Egypt.

Names of Men.

Aar'on
A'bel
Ab'ner
A'bra ham
Ad'am
A dolph
A dol'phus
Ad'o ni'ram
Al'bert
Al'ex an'der
Al'fred
Al'ger non
A lon'zo
Al'phe us
Al phon'so
Al'vah
Al'vin
A'mos
An'drew
An'tho ny
Ar'chi bald
Ar'te mas
Ar'thur
A'sa
Au'brey
Au gus'tus
Aus'tin
Bald'win
Ber'nard
Bar thol'o mew
Bas'il
Ben'e dict
Ben'ja min
Ber'tram
Cae'sar
Ca'leb
Cal'vin
Ce'cil
Ce'phas
Charles
Chris'to pher
Clar'ence
Claude
Clem'ent
Con'rad
Cor ne'li us
Cuth'bert
Cy'rus
Dan'i el
Don'ald
Dun'can
Eb'en
Eb'en e'zer
Ed'gar
Ed'mund
Ed'ward
Ed'win
Eg'bert
El'mer
E ne'as
E'noch
E'phra im
Er'nest
E'sau
E'than
Eu'gene
Ez'ra
Fer'di nand
Fran'cis
Fred'er ic
Fred'er ick
Ga ma'li el
Geof'frey
George
Ger'ald
Gil'bert
God'dard
God'frey
Greg'ory
Gus ta'vus
Har'old
Hen'ry
Her'bert
Hu'man
Hez'e ki'ah
Hi'ram
Ho'race
Ho ra'tio
How'ell
Hu'bert
Hugh
I'saac
Ja'cob
James
Jas'per
Je rome'
Jes'se
Jo'el
John
Jon'a than
Jo'seph
Josh'ua
Ju'li an
Ken'neth
Lam'bert
Lau'rence
Law'rence
Le an'der
Lem'u el
Leon'ard
Le'o pold
Lew'is
Lou'is
Li'o nel
Lu'ci us
Lu'ther
Mar cel'lus
Mar'cus
Mar'tin
Mat'thew
Mau'rice
Mer'e dith
Mi'cha el
Na po'le on
Na'than
Na than'a el
Na than'i el
Nich'o las
Nic'o las
Nor'man
Ol'i ver
Os'car
Ow'en
Pat'rick
Phil'ip
Ran'dal
Raph'a el
Ray'mond
Ray'mund
Reg'i nald
Reu'ben
Rich'ard
Rob'ert
Rog'er
Ru'dolph
Ru'fus
Ru'pert
Samp'son
Sam'son
Sam'u el
Si'las
Sil va'nus
Sil ves'ter
Syl ves'ter
Si'mon
Sol'o mon
Ste'phen
Thad'de us
The'o dore
Thom'as
Tim'o thy
Ti'tus
U lys'ses
U ri'ah
U'ri el
Val'en tine
Vic'tor
Vin'cent
Wal'ter
Wil'liam
Win'fred
Xe'nas

Names of Women.

Ab'i gail
A'da
Ad'a line
Ad'e line
Ad'e laide
Ad'e li'na
Ag'a tha
Ag'nes
Al ber'ta
Al'ex an'dra
Al'ex an dri'ner
Al'ice
Al'ma
Al'mi'ra
A man'da
A me'li a
A'my
Ann
An'na
Anne
Au gus'ta
Au re'li a
Bar'ba ra
Be'a trice
Be'a trix
Ber'tha
Blanch
Blanche
Car'o line
Cas san'dra
Cath'a rine
Cath'er ine
Ce cil'i a
Cec'i ly
Char'lotte
Clar'a
Clar'i bel
Clar'ice
Cla ris'sa
Con'stance
Co'ra
Cor de'li a
Cor ne'li a
Cyn'thi a
Deb'o rah
Dor'cas
Dor'o the'a
Dor'o thy
E'dith
Ed'na
El'e a nor
El'i nor
E lis'a beth
E liz'a beth
El'la
El'len
El'ri ca
Em'e line
Em'me line
Em'i ly
Em'ma
Es'ther
Eth'el
Eu do'ra
Eu ge'ni a
Eu'nice
E'va
E van'ge line
Flo'ra
Flor'ence
Fran'ces
Fred'er i'ca
Geor'gi an'a
Geor gi'na
Ger'al dine
Ger'trude
Grace
Han'nah
Har'ri et
Hel'en
Hel'e na
Hen'ri et'ta
Hes'ter
Hul'dah
I'da
I'nex
I rene'
Is'a bel

Is'abel'la
Jane
Ja net
Jean
Jeanne
Jean nette'
Jes'sie
Jo an'
Jo an'na
Jo han'na
Jo'seph ine
Ju'dith
Ju'li a
Ju'li an'a
Ju'li et
Kath'a rine
Kath'er ine
Lau'ra
Le o no'ra
Le ti'ti a
Lil i'an
Lil'ly
Lo'is
Lou i'sa
Lou ise'
Lu'ci a
Lu cin'da
Lu'cy
Lyd'i a
Ma'bel
Mar cel'la
Mar'ci a
Mar'ga ret
Ma ri'a
Mar'i on
Mar'tha
Ma'ry
Ma thil'da
Ma til'da
Me lis'sa
Mil'dred
Mi ner va
Mi ran'da
Mir'i am
My'ra
Oc ta'vi a
Ol'ive
O liv'i a
O phe'li a
Pau li'na
Pau line'
Pe nel'o pe
Phe'be
Phoe'be
Phi lip'pa
Phil'lis
Phyl'lis
Pris cil'la
Pru'dence
Ra'chel
Re bec'ca
Rho'da
Ro sa'li a
Ros'a lind
Ros'a mond
Ruth
Sa'ra
Sa'rah
Se li'na
Se re'na
Sib'yl
Si byl'la
So phi'a
So phro'ni a
Stel'la
Su'san
Syl'vi a
The'o do'ra
The re'sa
U ra'ni a
Vic to'ri a
Vi o la
Vir gin'i a
Viv'i an
Wil'hel mi'na
Win'i fred

Words Pronounced Alike, but Spelled Differently.

Feign—to pretend.
Fain—with joy.
Plane—to level.
Plain—level land.
Birth—coming into life.
Berth—a sleeping compartment in a car.
Peace—calmness.
Piece—a fragment.
Guest—a visitor.
Guessed—supposed.
To—the preposition.
Too—the adverb.
Two—the numeral adjective.
Hue—color.
Hew—To cut with sharp instrument.
Their—possessive case of personal pronoun.
There—in that place.
Medal—to serve a reward.
Meddle—to interfere.
Peak—a point.
Pique—to offend.
Plate—a dish.
Plait—to braid.
Climb—to mount.
Clime—a climate.
Peal—a loud sound.
Peel—to skin.
Plum—a raisin.
Plumb—vertical.
Beach—a shore.
Beech—a tree.
Bass—a deep tone.
Base—dishonorable.
Straight—direct.
Strait—poverty.
Reign—to rule.
Rein—a strap to control horses.
Core—centre of any fruit.
Corps—a body of men.
Aisle—a narrow passage.
Isle—an island.
Course—road.
Coarse—not refined.
Vain—conceited.
Vane—a weather cock.
Vein—a vessel carrying blood.
Serge—a stuff used for clothing.
Surge—rolling water.
Frieze—an ornamental band.
Freeze—to congeal.
Canvas—strong cloth.
Canvass—to examine.
Cannon—a large gun.
Canon—a rule.
Carrot—a root.
Caret—a mark showing omission.
Carat—a standard of weight.
Borough—an incorporated town.
Burrow—to excavate a hole to lodge in.
Gamble—to play for money.
Gambol—to frisk.
Altar—a place devoted to pray.
Alter—to change.
Dying—expiring.
Dyeing—coloring.
Symbol—a type.
Cymbal—musical instrument.
Serial—succession of parts.
Cereal—a grain.
Mantel—a shelf.
Mantle—a cloak.
Currant—a small fruit.
Current—a stream.
Ascent—slope.
Assent—agreement.
Bolder—the comparative degree of bold.
Boulder—a large stone worn smooth by the action of water.
Marshal—to lead.
Martial—warlike.
Ferrule—a ring put on a cane.
Ferule—a flat piece of wood.
Ceiling—overhead lining.
Sealing—making fast.
Indite—to compose.
Indict—to charge with crime.
Troche—a lozenge.
Trochee—a foot of two syllables.
Capital—chief city.
Capitol—statehouse.
Calendar—an almanac.
Calender—a machine to make smooth.
Compliment—to praise.
Complement—to supply a deficiency.
Stationery—articles sold by stationers.
Stationary—fixed.
Colonel—the chief officer.
Kernel—a single seed.
Dual—consisting of two.
Duel—a combat.
Rout—to overthrow.
Route—a road.
Loose—to set free.
Lose—to waste.
Quiet—calm.
Quite—entirely.
Threw—flung.
Through—to the end.
Loath—unwilling.
Loathe—extreme disgust.
Either—one of two.
Ether—the air itself.
Therefore—consequently.
Therefor—for that.
Whether—in case.
Wether—a ram.
Specie—coin.
Species—kind.
Populous—containing inhabitants.
Populace—common people.
Glacier—a field of ice.
Glazier—whose business is setting glass.
Prophecy—a prediction.
Prophesy—to predict.
Ordinance—a rule.
Ordnance—heavy weapons.
Dessert—last course of dinner.
Desert—to forsake.
Council—an assembly of men.
Counsel—advice.
Employe—one employed by another.
Employee—English form of employé.
Swathe—to bind with bandage.
Swath—a line of grass or grain.

Leading Foreign Countries.

- Algeria.
- Argentina.
- Austria-Hungary.
- Belgium.
- Bolivia.
- Brazil.

- BRITISH EMPIRE.
  - England.
  - Scotland.
  - Wales.
  - Ireland.
  - India.
  - Australia.
  - New Zealand.
  - Canada.
  - Guiana.
  - Orange R. Colony.
  - Transvaal Colony.
- Bulgaria.
- Chile.
- China.
- Colombia, U. S. of.
- Costa Rica.
- Cuba.
- Denmark.
- Ecuador.
- Egypt.
- France.

- GERMAN EMPIRE.
  - Prussia.
  - Bavaria.
  - Saxony.
  - Würtemburg.
  - Baden.
  - Hesse.
  - Mecklenburg-Schwerin.
  - Saxe Weimar.
  - Mecklenburg-Strelitz.
  - Oldenburg.
  - Brunswick.
  - Saxe-Meiningen.
  - Saxe-Altenburg.
  - Saxe-Coburg-Gotha.
  - Anhalt.
  - Schwarzburg-Rudolstadt.
  - Schwarzburg-Sondershausen.
  - Waldek.
  - Reuss-Greiz.
  - Lippe.
  - Lübeck.
  - Hamburg.
  - Alsace-Loraine.
- Greece.
- Guatemala.
- Haiti.
- Honduras.
- Italy.
- Japan.
- Liberia.
- Mexico.
- Montenegro.
- Morocco.
- Netherlands.
- Nicaragua.
- Norway
- Paraguay.
- Persia.
- Peru.
- Portugal.
- Roumania.
- Russia.
- Salvador.
- Santo Domingo.
- Servia.
- Siam.
- Spain.
- Sweden.
- Switzerland.
- Turkey.
- Uruguay.
- Venezuela.

INDUSTRIES

OF THE

UNITED STATES

◆

Manufactures, Specified Industries
Mineral Products
Railways and Communication
Agriculture, Dairying

◆

A HUNDRED YEARS OF NATIONAL PROGRESS

COMPENDIOUS VIEW

OF ALL OUR

NATIONAL INDUSTRIES

OFFICIAL DEPARTMENT AND CENSUS FIGURES

A Few of the Leading Exhibits Being

TOTAL MANUFACTURES FOR SIX CENSUSES

Silk Manufactures by States
Malt and Spirituous Liquors
Gloves and Mittens
Lumber Industry
Agricultural Implements
Wheat and Flour Products
Manufactures of Leather
Cotton Manufactures
Manufactures of Paper
Shipbuilding
Steam Car Industry
Chemicals
Clothing Manufactures
Tin Plate Manufactures
Manufactures of Iron and Steel
Woolen Manufactures
Manufactures of Sugar
Manufactures by Specified Industries, etc.

MINERAL PRODUCTS OF THE UNITED STATES

Grouping by Geological Survey
Petroleum Products
Coal Production
Production of Zinc
Gold and Silver Products
Coinage Value of Gold and Silver
Marvels of Iron Ore
Production of Lead
Copper Products, etc

RAILWAYS AND COMMUNICATION

Railways in U. S. and Growth for Sixty Years
Railroads by States
Railway Accidents
Cost and Length of Railways
Fastest Trains
Telegraphs in the U. S.
Telephones in the U. S.
Canals in the U. S.
Post-Offices and Routes
Mail Distances
Water Communication
Passports for Travel

AGRICULTURE IN THE UNITED STATES

Farms in the U. S.
Values of Farms and Products
Number and Value of Domestic Animals
Wheat and Corn Crop Values
Cotton Production and Values
Rye, Oats and Hay Crops
Barley, Sugar and Rice Crops
Potato and Tobacco Crops
Values of Classified Crops
Centres of Farm Production
Poultry and Fruit Statistics
Dairy Rules and Products

A HUNDRED YEARS OF NATIONAL PROGRESS

The entire Industrial Features of the country in a nutshell. Whole volumes brought right to hand. A wonder of condensation and arrangement. No floundering through tomes, nor loss of precious time.

Manufactures of the United States.

SILK MANUFACTURES OF THE UNITED STATES FOR SIX CENSUSES.

	1900.	1890.	1880.	1870.	1860.	1850.
Establishments (number)	483	472	382	86	139	67
Capital invested (dollars)	81,082,201	51,007,537	19,125,300	6,231,130	2,926,980	687,300
Official and clerical salaries (dollars)	3,134,352	1,917,877	....	....	....	....
Wage-earners (number)	65,416	49,382	31,337	6,649	5,435	1,723
Wages paid (dollars)	20,982,194	17,762,441	9,146,705	1,942,286	1,050,224	297,416
Running expenses (dollars)	10,264,208	4,259,623	....	....	....	....
Cost of material (dollars)	62,406,665	51,004,425	22,467,701	7,817,559	3,901,777	1,093,860
Value of products (dollars)	107,256,258	87,298,454	41,033,045	12,210,662	6,607,771	1,809,476
Raw silk used (pounds)	9,760,770	6,376,881	2,690,482	684,488	462,965	....

SILK MANUFACTURES BY STATES.

STATES	Years.	Reported Cost of Material.	Reported Value of Product.	Value of Finished Product.
New Jersey	1900	$21,631,118	$39,966,662	$37,697,942
	1890	17,908,883	30,760,371	25,405,982
Pennsylvania	1900	19,884,869	31,072,926	21,713,647
	1890	12,094,389	19,357,546	11,404,228
New York	1900	6,570,037	12,706,246	11,955,212
	1890	10,174,818	19,417,796	17,736,315
Connecticut	1900	7,198,008	12,378,981	11,337,267
	1890	6,201,876	9,788,951	8,123,561
Massachusetts	1900	3,823,963	5,957,532	5,666,802
	1890	3,251,893	5,557,569	4,611,959
Rhode Island	1900	818,561	1,311,333	1,289,039
	1890	149,763	229,062	135,000
Illinois	1900	187,514	421,088	391,195
	1890	314,855	785,845	785,845
Virginia	1900	720,525	981,680	40,904
	1890	Included in	"All other States."	
California	1900	146,219	255,902	246,602
	1890	146,406	271,912	266,312
North Carolina	1900	99,403	135,354	70,893
	1890	Included in	"All other States."	
Maryland	1900	Included in	"All other States."	
	1890	34,305	100,361	100,361
Ohio	1900	Included in	"All other States."	
	1890	13,983	33,927	33,927
All other States	1900	1 326,448	2,068,554	2,041,709
	1890	713,254	995,114	551,114

MALT LIQUORS MANUFACTURED.

[*From Twelfth* (1900) *Census*.]

YEAR.	Number of Barrels.	YEAR.	Number of Barrels.
1863	2,006,625	1882	16,952,085
1864	3,141,381	1883	17,757,892
1865	3,657,181	1884	18,998,619
1866	5,115,140	1885	19,185,953
1867	6,207,402	1886	20,710,933
1868	6,146,663	1887	23,121,526
1869	6,342,055	1888	24,680,219
1870	6,574,617	1889	25,119,853
1871	7,740,260	1890	27,561,944
1872	8,659,427	1891	30,478,192
1873	9,633,323	1892	31,817,836
1874	9,600,897	1893	34,554,317
1875	9,452,697	1894	33,334,783
1876	9,902,352	1895	33,561,411
1877	9.810,060	1896	35,826,098
1878	10,241,471	1897	34,423,094
1879	11,103,084	1898	37,493,306
1880	13,347,111	1899	36,581,114
1881	14,311,028	1900	39,330,849

DISTILLED SPIRITS MANUFACTURED, AND ON WHICH TAXES WERE PAID,

[*From Twelfth* (1900) *Census.*]

YEAR.	Number of Gallons Manufactured.	Number of Gallons on which Tax Was Paid.	YEAR.	Number of Gallons Manufactured.	Number of Gallons on which Tax Was Paid.
1863	16,149,954	16,149,954	1882	107,283,215	71,976,398
1864	85,295,393	85,295,393	1883	75,294,510	76,762,063
1865	16,973,974	16,973,974	1884	76,531,167	79,616,901
1866	24,062;705	14,847,943	1885	76,405,074	69,158,025
1867	32,740,236	14,588,740	1886	81,849,260	70,851,355
1868	16,910,913	7,224,809	1887	79,433,446	67,380,391
1869	54,276,742	62,092,417	1888	71,688,188	71,565,486
1870	72,560,929	78,490,198	1889	91,133,550	77,163,529
1871	57,048,457	62,314,628	1890	111,101,738	85,043,336
1872	69,365,443	66,235,578	1891	117,767,101	88,473,437
1873	71,202,554	65,911,141	1892	118,436,506	95,045,787
1874	69,572,061	62,581,562	1893	131,010,330	99,145,889
1875	62.687,627	64,425,911	1894	92,153,651	88,777,387
1876	58,631,868	58,012,693	1895	81,909,771	75,555,742
1877	61,439,409	58,543,389	1896	89,992,555	68,480,720
1878	57,342,456	50,704,189	1897	64,279,075	69,979,362
1879	72,888,373	53,025,175	1898	83,668,411	79,764,749
1880	91,378,417	62,132,415	1899	100,162,334	85,125,532
1881	119,528,011	69,127,206	1900	109,245,187	94,887,201

MANUFACTURE OF ALCOHOLIC LIQUORS IN THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

	Total.	Liquors, Malt.	Liquors, Distilled.	Liquors, Vinous.
Number of establishments	2,835	1,509	967	359
Capital	$457,674,087	$415,284,468	$32,551,604	$9,838,015
Salaried officials, clerks, etc. (number)	8,158	7,153	661	344
Salaries	$14,301,644	$13,046,540	$889,606	$365,498
Wage-earners (average number)	44,417	39,532	3,722	1,163
Total wages	$28,005,484	$25,826,211	$1,733,218	$446,055
Men, sixteen years and over	43,107	38,385	3,623	1,099
Wages	$27,726,021	$25,573,612	$1,715,552	$436,857
Women, sixteen years and over	646	504	81	61
Wages	$156,850	$132,614	$15,428	$8,808
Children, under sixteen years	664	643	18	3
Wages	$122,613	$119,985	$2,238	$390
Miscellaneous expenses	$183,099,796	$109,329,231	$73,218,227	$552,338
Cost of materials used	$70,512,042	$51,674,928	$15,147,784	$3,689,330
Value of products	$340,615,466	$237,269,713	$96,798,443	$6,547,310

VALUE OF GLOVES AND MITTENS MANUFACTURED IN THE UNITED STATES, WITH THE PROPORTION MADE OF LEATHER.

[*From Twelfth* (1900) *Census.*]

	All Materials.	Leather.	Per Cent of Leather to Total.
Number of establishments	397	381	96.0
Capital	$9,127,309	$9,004,427	98.7
Salaried officials, clerks, etc. (number)	661	637	96.4
Salaries	$548,520	$544,170	99.2
Wage-earners (average number)	14,436	14,180	98.2
Total wages	$4,217,845	$4,151,126	98.4
Men, sixteen years and over	4,402	4,364	99.1
Wages	$2,030,554	$2,014,134	99.2
Women, sixteen years and over	9,754	9,542	97.8
Wages	$2,150,480	$2,101,044	97.7
Children, under sixteen years	280	274	97.9
Wages	$36,811	$35,948	97.7
Miscellaneous expenses	$568,582	$562,870	99.0
Cost of materials used	$9,554,105	$9,382,102	98.2
Value of products, including custom work and repairing	$17,048,656	$16,721,234	98.1

SUMMARY OF BICYCLE AND TRICYCLE MANUFACTURE IN THE UNITED STATES,

[*From Twelfth* (1900) *Census.*]

	1900.	1890.	Per Cent of Increase.
Number of establishments	312	27	1,055.6
Capital	$29,783,659	$2,058,072	1,347.2
Salaried officials, clerks, etc. (number)	2,034	128	1,489.1
Salaries	$1,753,235	$123,714	1,317.2
Wage-earners (average number)	17,525	1,797	875.3
Total wages	8,189,817	$982,014	734.0
Men, sixteen years and over	16,700	1,747	855.9
Wages	$7,952,257	$971,539	718.5
Women, sixteen years and over	517	15	3,346.7
Wages	$175,028	$3,729	4,593.7
Children, under sixteen years	308	35	780.0
Wages	$62,532	$6,746	826.9
Miscellaneous expenses	$2,252,604	$242,018	830.8
Cost of materials used	$16,792,051	$718,848	2,236.0
Value of products	$31,915,908	$2,568,326	1,142.7

LUMBER INDUSTRY OF THE UNITED STATES.

[*Census of* 1900.]

	Logging Camps.	Sawmills.	Planing Mills.
Number of establishments	15,376	31,833	10,201
Capital	$274,466,098	$305,785,226	$150,631,834
Proprietors	18,469	42,120	5,094
Salaried employees	2,406	10,835	6,773
Salaries paid	$1,785,738	$9,702,785	$6,281,252
Wage-earners	120,122	229,717	106,628
Wages paid	$44,439,100	$82,694,951	$45,879,083
Miscellaneous expenses	23,795,596	17,731,519	7,289,615
Cost of materials	67,206,494	226,138,992	182,012,392
Value of products	174,066,365	422,812,061	275,965,525

COTTON SEED PRODUCTS OF THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

In the census year, ending May 31, 1900, 357 establishments reported as engaged in the manufacture of cottonseed products. These crushed 2,479,386 tons of seed, of the value of $28,632,616, or $11.55 per ton, and turned out the following products and values:

	OIL.		CAKE AND MEAL.		HULLS.		LINTERS.	
	Gallons.	Value.	Tons.	Value.	Tons.	Value.	Pounds.	Value.
United States	93,325,729	$21,390,674	884,391	$16,030,576	1,169,286	$3,189,354	57,272,053	$1,801,231
Alabama	6,704,951	1,520,834	60,389	1,076,150	80,167	217,925	4,331,016	137,345
Arkansas	7,224,971	1,644,465	65,459	1,142,102	90,683	248,770	4,613,519	153,475
Georgia	10,606,693	2,468,386	91,637	1,713,038	132,344	405,581	6,398,830	200,095
Indian Territory	931,885	207,251	9,185	182,807	13,074	32,972	673,975	23,048
Louisiana	9,692,640	2,222,762	91,348	1,715,424	114,446	287,650	6,133,661	172,055
Mississippi	15,033,565	3,364,278	141,529	2,618,405	185,060	396,791	9,199,737	291,557
North Carolina	4,388,277	979,637	36,088	678,973	52,139	145,928	2,149,996	75,477
Oklahoma	937,021	186,761	9,481	163,785	12,424	40,897	525,550	18,620
South Carolina	6,162,218	1,545,934	57,986	1,169,645	71,542	217,886	3,223,892	110,082
Tennessee	6,454,173	1,363,555	59,613	1,045,795	79,858	196,105	4,058,473	131,583
Texas	24,354,695	5,696,263	252,983	4,371,377	328,119	975,489	15,544,379	476,527
All other States	834,640	190,548	8,693	153,075	9,430	23,360	419,025	11,367

AGRICULTURAL IMPLEMENTS MANUFACTURED IN THE UNITED STATES

[*From Twelfth* (1900) *Census.*]

	1900.	1890.	1880.	1870.
Seeders and planters:				
Bean planters	200	....	....	....
Corn planters, hand	129,515	77,501	68,691	21,709
Corn planters, horse	78,135	54,639	....	....
Cotton planters,	45,575	56,740	19,288	2,000
Potato planters	25,338	....	....	....
Drills, beet	5,302	....	....	....
Drills, corn	21,940	....	....	....
Drills, grain	91,635	44,830	43,222	32,033
Grain sowers	36,862	16,728	15,563	....
Lime spreaders	474	....	....	....
Listers	26,995	18,603	....	....
Manure spreaders	5,263	....	8,155	....
Seed growers	83,283	57,716	20,289	6,900
Tobacco transplanters	3,788	....	4,245	....
Implements of cultivation:				
Bean cultivators	189	....	....	....
Beet cultivators	2,008	....	....	....
Celery hillers	130	....	....	....
Cotton scrapers	15,230	....	....	....
Cotton sweeps	75,311	....	....	....
Cultivators, small	206,982	239,008	318,057	88,740
Cultivators, wheel	295,799	206,482	....	....
Equalizers	74,168	....	....	....
Harrows, disk	97,261	53,980	....	....
Harrows, other than disk	380,259	214,985	....	9,150
Hoes (dozens)	277,173	254,814	299,338	135,139
Markers and furrowers	854	....	....	....
Plows, disk	17,345	....	....	....
Plows, shovel	102,320	....	....	....
Plows, steam	207	....	....	....
Plows, sulky or wheel	136,105	67,286	....	....
Plows, walking	819,022	1,182,059	1,326,123	864,947
Potato coverers and hillers	3,052	....	....	....
Rollers	12,590	5,168	3,002	4,803
Stalk cutters	13,425	21,605	....	....
Harvesting implements:				
Grain cradles	36,163	84,222	167,492	103,646
Harvesters, bean	1,425	....	....	....
Harvesters, corn	20,707	....	....	....
Harvesters, grain	187	....	....	3,566
Harvesters, other	6,283	[1] 3,429	25,737	....
Harvesters and binders combined	233,355	125,942	....	....
Hay carriers	54,303	24,351	....	....
Hayforks, hand (dozens)	152,840	[2] 264,742	206,727	108,188
Hayforks, horse	51,770	1,823	....	....
Hay loaders	7,273	3,019	8,957	....
Hayrakes, hand (dozens)	58,013	64,825	308,732	207,310
Hayrakes, horse	216,345	114,790	95,625	80,619
Hay and straw stackers	12,316	1,499	....	....
Hay tedders	14,510	12,176	2,334	....
Mowers	397,561	170,893	72,090	39,486
Mowers and reapers combined	1,055	15,681	54,920	59.645
Potato diggers	21,033	4,816	33,453	....
Potato hooks	20,860	....	....	....
Reapers	35,945	8,834	35,327	60,388
Scythes	718,453	795,400	1,244,264	881,244
Scythes snaths	537,214	511,856	437,178	17,680
Sickles	446,660	....	95,613	3,600
Seed separators:				
Bean separators	40	....	....	....
Clover hullers	661	651	1,412	5,206
Corn huskers	10,726	....	44,370	....
Cornshellers, hand	106,381	85,438	59,157	12,941
Cornshellers, power	8,185	5,726	....	....
Fanning mills	30,369	21,460	45,412	19,772
Separators, other than bean and cotton seed	1,707	[3] 4,577	9,103	1,131
Thrashers, horse-power	1,314	2,769	10,424	22,931
Thrashers, steam-power	3,651	2,661	....	....
Thrashers and separators, combined	5,394	5,937	....	....

Number of establishments reporting in 1900	715
Capital invested	$157,707,951
Salaries paid	8,363,210
Wages paid	22,450,880
Salary and wage-earners	56,628
Value of implements made and repaired	$101,207,428

---

[1] Harvesters of all kinds, not reported separately.
[2] Hay, manure, and spading forks, not reported separately.
[3] Separators of all kinds, not reported separately.

MERCHANT MILLS AND WHEAT FLOUR PRODUCT, BY STATES, PRODUCING OVER $1,000,000.

[*From Twelfth* (1900) *Census.*]

States and Territories.	Rank.	No. of Establishments.	Raw Material, Wheat.		Products, Flour.	
			Bushels.	Cost.	Barrels.	Value.
Total	....	8,987	481,658,179	$312,632,026	100,823,820	$342,119,777
Minnesota	1	324	102,921,426	$66,641,825	22,705,165	$72,381.659
Ohio	2	744	35,033,213	24,370,443	7,366,474	26,060.827
Illinois	3	404	27,566,764	18,382,716	6,078,423	20,813,984
Indiana	4	592	29,192,680	19,188,538	5,818,392	20,384,714
New York	5	205	25,232,677	18,432,502	5,434,827	19,928,981
Missouri	6	593	25,368,939	16,263,077	5,245,421	17,800,204
Pennsylvania	7	1,185	22,923,795	16,179,063	4,775,166	17,059,265
Wisconsin	8	313	22,356,963	14,869,326	3,750,253	15,496,295
Kansas	9	260	23,459,171	13,157,846	5,034,251	15,089,529
Michigan	10	479	20,121,661	13,855,780	4,012,867	14,899,096
Tennessee	11	337	16,546,155	11,778,868	3,512,985	13,220,609
Kentucky	12	336	12,325,621	8,294,690	2,549,947	9,341,759
Texas	13	96	12,228,132	8,046,610	2,604,554	8,881,359
Iowa	14	327	12,521,953	7,005,972	2,503,390	8,244.050
California	15	90	12,786,110	7,649,433	2,660,238	7,952,867
Virginia	16	317	8,562,519	6,025,314	1,758,946	6,671,815
Maryland	17	235	7,081,937	4,972,234	1,475,416	5,418,734
Nebraska	18	242	8,687,731	4,546,481	1,821,107	5,319,911
Oregon	19	124	8,847,242	4,403,048	1,826,512	4,769,573
Washington	20	57	8,887,996	4,302,920	1,868,780	4,758,004
North Carolina	21	551	4,549,396	3,609,061	945,761	4,047,340
Georgia	22	270	4,136,857	2,880,435	789,191	3,431,754
North Dakota	23	66	4,827,477	2,756,484	1,029,070	3,274,958
Colorado	24	46	4,869,458	2,716,924	1,012,381	3,063,100
West Virginia	25	334	3,813,985	2,680,322	767,160	2,969,298
Oklahoma	26	30	4,516,858	2,440,518	975,870	2,855,216
South Dakota	27	80	4,427,426	2,380,818	915,541	2,695,024
Arkansas	28	158	2,912,566	1,840,529	605,702	2,005,295
New Jersey	29	119	2,404,670	1,743,080	466,338	1,871,129
Utah	30	72	2,546,801	1,217,169	513,692	1,413,428

CLAY PRODUCTS OF THE UNITED STATES

[*Compiled from Census Reports.*]

	1900.[1]	1890.	Increase.
Aggregate value	$95,533,862	$89,827,785	$5,706,077
Brick, tile, and terra cotta:			
Total value	$78,336,447	$77,488,493	$847,954
Common brick	36,674,749	48,810,271	9,135,522
Pressed brick	2,537,912	5,973,902	3,435,990
Fancy colored front brick	2,082,000	187,920	1,894,080
Vitrified brick and blocks	4,828,456	982,440	3,846,016
Electrical conduits	685,273	53,500	631.773
Sewer pipe	4,560,334	5,394,921	834.587
Drain tile	3,662,184	5,009,804	1,347,620
Flue linings	310,989	68,184	242,805
Stove linings	416,235	151,023	265,212
Furnace fittings	1,043,085	161,469	881,616
Gas retorts	196,567	24,408	172,159
Glass-melting pots	407,141	312,343	94,798
Fire brick	8,636,562	6,318,770	2,317,792
Roofing, floor, and encaustic tile	1,276,300	795,958	480,342
Hollow brick, fireproofing, and terra cotta lumber	1,665,031	402,750	1,262,281
Chimney tops	242,289	101,208	141,081
Architectural terra cotta	2,027,532	1,431,228	596,304
All other brick, tile, and terra cotta products	4,083,808	1,308,394	2,775,414
Pottery products:			
Total value	17,197,415	12,339,292	4,858,123
Stoneware	1,970,710	2,056,463	85,753
Yellow and Rockingham ware	159,553	439,553	280,000
C. C. or cream-colored ware	1,540,488	1,226,161	314,327
White granite ware	1,787,101	1,676,579	110,522
Semivitreous porcelain ware	3,048,762	669,107	2,379,655
China (porcelain)	1,255,978	460,334	795,644
Art pottery and porcelain	629,402	957,168	327,766
All other pottery products	6,805,421	4,853,927	1,951,494

Ohio rates as the first State in the clay industry, with a product valued (1899) at $16,480,812; Pennsylvania second, with a product valued at $14,081,844; New Jersey third, $10,786,673; New York fourth, $8,073,769.

PRINCIPAL LEATHER MANUFACTURES IN THE UNITED STATES

[*From Twelfth* (1900) *Census.*]

	Year.	Number of Establishments.	Capital.	Wage-Earners.		Cost of Materials Used.	Value of Products.
				Average Number.	Total Wages.		
Total	1900	40,751	$356,581,838	251,920	$105,571,004	$405,208,784	$615,720,395
Boots and shoes, factory product	1900	1,600	$101,795,233	142,922	$59,175,883	$169,604,054	$261,028,580
Leather, tanned, curried, and finished.	1900	1,306	173,977,421	52,109	22,591,091	155,000,004	204,038,127
Saddlery and harness	1900	12,934	43,354,136	24,123	10,725,647	33,127,926	62,630,902
Leather goods, pocketbooks, trunks, and valises	1900	772	13,505,819	14,990	5,679,767	13,485,761	26,905,814
Boots and shoes, custom work and repairing	1900	23,560	9,262,134	9,698	4,128,361	8,288,664	26,550,678
Boot and shoe cut stock	1900	342	7,003,080	6,155	2,230,691	17,800,282	23,242,892
Belting and hose, leather	1900	105	7,410,219	1,667	913,937	7,500,413	10,623,177
Boot and shoe uppers	1900	132	273,796	256	125,627	401,680	700,225
Total	1890	33,970	265,687,684	233,496	107,978,195	307,376,267	529,311,269
Boots and shoes, factory product	1890	2,082	$95,282,311	133,690	$60,667,145	$118,785,831	$220,649,358
Leather, tanned, curried, and finished.	1890	1,749	97,653,898	42,095	21,090,176	122,221,982	171,063,337
Saddlery and harness	1890	7,931	35,346,620	22,672	10,908,918	24,674,225	52,970,801
Leather goods, pocketbooks, trunks, and valises	1890	613	11,148,694	10,074	4,448,796	8,785,822	18,814,885
Boots and shoes, custom work and repairing	1890	20,803	14,230,081	16,981	7.422,377	10,403,383	34,856,651
Boot and shoe cut stock	1890	344	5,401,834	4,992	1,891,031	13,744,655	17,903,846
Belting and hose, leather	1890	93	4,973,420	1,342	780,615	6,132,704	8,633,634
Boot and shoe uppers	1890	317	1,216,026	1,353	609,324	1,902,926	3,346,002
Leather, dressed skins	1890	38	434,800	297	159,813	724,739	1,072,755
Total	1880	32,327	152,380,350	207,096	79,747,644	308,679,003	461,189,543
Boots and shoes, factory product	1880	1,959	$42,994,028	111,152	$43,001,438	$102,442,442	$166,050,354
Leather, tanned, curried, and finished.	1880	5,426	67,117,674	34,887	14,062,456	145,320,852	184,865,633
Saddlery and harness	1880	7,999	16,508,019	21,446	7,997,752	19,968,716	38,081,643
Leather goods, pocketbooks, trunks, and valises	1880	378	3,961,256	6,998	2,737,726	5,951,039	11,168,749
Boots and shoes, custom work and repairing	1880	16,013	11,364,273	22,667	7,993,706	12,524,133	30,870,127
Boot and shoe cut stock	1880	172	1,210,300	2,885	735,482	5,939,249	7,531,635
Belting and hose, leather	1880	97	2,749,299	1,229	607,287	5,021,203	6,531,249
Boot and shoe uppers	1880	81	209,264	437	170,425	448,104	790,842
Leather, dressed skins	1880	202	6,266,237	5,395	2,441,372	11,063,265	15,399,311
Total	1870	38,990	128,812,105	199,826	76,150,297	235,341,371	385,241,245
Leather, tanned, curried, and finished.	1870	7,459	$59,784,362	34,345	$14,108,201	$116,469,899	$154,377,625
Saddlery and harness	1870	7,607	13 935,961	23,557	7,046,207	16,068,310	32,709 981
Leather goods, pocketbooks, trunks, and valises	1870	295	2,638,389	4,329	2,171,416	3,889,695	9,091,543
Boots and shoes	1870	23,428	48,994,366	135,889	51,972,712	93,582,528	181,644,090
Belting and hose, leather	1870	91	2,118,577	808	454,187	3,231,204	4,558,043
Leather, dressed skins	1870	110	1,340,450	898	397,754	2,099,735	2,859,972
Total	1860	21,556	70,718,431	165,086	44,308,830	102,084,492	187,552,528
Leather, tanned, curried, and finished.	1860	5,175	$38,708,170	26,145	$8,144,278	$49.534,318	$75,318,475
Saddlery and harness	1860	3,621	6,478,184	12,285	4,150,365	6,606,415	14,169,037
Leather goods, pocketbooks, trunks, and valises	1860	214	1,244,000	3,160	901,741	1,990,573	4,163,956
Boots and shoes	1860	12,486	23,357,627	123,026	30,938,080	42,728,174	91,889.298
Boot and shoe cut stock	1860	1	25,000	15	8,184	31,400	149,740
Belting and hose, leather	1860	46	588,000	354	134,952	915,270	1,481,750
Leather, dressed skins	1860	13	117,450	101	31,230	278,341	380,272
Total	1850	21,679	40,232,503	145,988	31,877,342	55,873,881	109,734,643
Leather, tanned, curried, and finished.	1850	6,664	$22,582,795	25,379	$6,492,130	$26,038,743	$42,932,528
Saddlery and harness	1850	3,515	3,969,379	12,958	3,154,008	4,247,006	9,935.474
Leather goods, pocketbooks, trunks, and valises	1850	165	522,610	2,142	543,840	1,056,835	2,213,363
Boots and shoes	1850	11,305	12,924,919	105,254	21,622,608	23,848,374	53,967,408
Belting and hose, leather	1850	8	40,800	39	15,208	111,785	160,500
Leather, dressed skins	1850	22	192,000	216	49,548	391,138	525,370

MANUFACTURES OF THE UNITED STATES BY STATES.

[*From Twelfth* (1900) *Census.*]

STATES AND TERRITORIES.	No. of Establishments.	Capital.	Salaried Officials.		Wage-earners.		Miscellaneous Expenses.	Cost of Materials.	Value of Products.
			Number.	Salaries.	Number.	Wages.			
Alabama	5,602	$70,370,081	2,530	$2,168,971	52,902	$15,130,419	$3,828,402	$44,098,671	$80,741,449
Alaska	63	3,600,400	82	117,480	2,263	1,395,709	170,334	1,785,776	4,250,984
Arizona	314	10,157,408	210	267,510	3,266	2,369,065	443,272	8,464,410	21,315,189
Arkansas	4,794	35,960,640	1,649	1,251,096	26,501	8,686,291	1,482,779	23,963,768	45,197,731
California	12,582	205,395,025	7,884	8,360,829	91,047	47,425,947	16,190,282	188,125,602	302,874,761
Colorado	3,570	62,825,472	2,052	2,272,480	24,725	15,146,667	4,169,635	66,886,016	102,830,137
Connecticut	9,128	314,696,736	9,981	12,286,050	176,694	82,767,725	23,089,806	185,641,219	352,824,106
Delaware	1,417	41,203,239	1,327	1,422,831	22.203	9,259,661	2,155,948	26,652,601	45,387,630
District of Columbia	2,754	41,981,245	2,083	1,833,437	24,693	14,643,714	4,433,652	19,369,571	47,667,622
Florida	2,056	33,107,477	1,778	1,295,139	34,230	10,683,038	2,363,626	15,637,520	36,810,243
Georgia	7,504	89,789,656	4,203	3,354,946	83,842	20,290,071	5,321,330	58,232,202	106,654,527
Hawaii	395	11,541,655	574	622,564	4,587	1,886,756	873,300	12,848,663	24,992,068
Idaho	591	2,941,524	97	70,786	1,477	862,088	142,596	2,055,368	4,020,532
Illinois	38,360	776,829,598	44,342	43,337,464	395,110	191,510,962	130,876,318	739,754,414	1,259,730,168
Indiana	18,015	234,481,528	11,282	10,526,293	155,956	66,847,317	33,052,160	214,961,610	378,120,140
Indian Territory	789	2,624,265	135	86,067	1,714	553,899	163,174	2,225,730	3,892,181
Iowa	14,819	102,733,103	5,664	4,846,117	58,553	23,931,680	7,988,767	101,170,387	164,617,877
Kansas	7,830	66,827,362	3,860	3,256,086	35,193	16,317,689	5,241,450	129,485,320	172,129,398
Kentucky	9,560	104,070,791	5,079	4,687,441	62,962	22,434,185	19,581,630	82,830,415	154,160,365
Louisiana	4,350	113,084,294	3,944	3,090,185	42,210	15,385,715	7,999,870	82,299,893	121,181,683
Maine	6,702	122,918,826	3,329	3,171,433	74,816	28,527,849	7,774,216	68,863,408	127,361,488
Maryland	9,879	163,147,260	7,585	7,380,263	108,325	38,748,551	17,209,623	144,397,680	242,552,990
Massachusetts	29,180	823,264,287	27,860	31,257,630	497,448	228,240,442	73,209,015	552,717,955	1,035,198,989
Michigan	16,807	284,097,133	13,858	12,562,855	162,355	66,467,867	25,495,423	199,559,905	356,944,082
Minnesota	11,114	165,832,246	7,319	6,554,424	77,234	35,484,825	13,273,648	173,425,615	262,655,881
Mississippi	4,772	35,807,419	1,569	1,167,020	26,418	7,471,886	1,476,855	21,692,092	40,431.386
Missouri	18,754	249,888,581	13,900	14,569,606	134,975	60,719,428	41,396,905	214,988,018	385,492,784
Montana	1,080	40,945,846	563	837,971	10,117	7,969,886	1,668.487	32,702,650	57,075,824
Nebraska	5,414	71,982,127	2,657	2,325,038	24,461	11,570,688	6,935,399	102,197,707	143,990,102
Nevada	228	1,472,784	39	37,560	601	416,732	68,457	826,138	1,643,675
New Hampshire	4,671	100,929,661	2,193	2,290,210	70,419	27,620,247	6,356,130	66,348,594	118,709,308
New Jersey	15,481	502,824,082	16,283	19,688,946	241,582	110,088,605	42,654,076	360,945,843	611,748,933
New Mexico	420	2,698,786	95	95,972	2,600	1,350,586	204,337	2,914,138	5,605,795
New York	78,658	1,651,210,220	74,480	82,075,648	849,056	408,855,652	221,886,271	1,143,791,776	2,175,726,700
North Carolina	7,226	76,503,894	3,001	2,434,621	70,570	13,868,430	9,118,637	53,072,388	94,919,663
North Dakota	1,130	5,396,490	168	141,132	2,398	1,222,472	302,492	5,615,793	9,183,114
Ohio	32,398	605,792,266	30,003	29,351,045	345,869	153,955,330	69,728,206	447,849 677	832,438,113
Oklahoma	870	3,352,064	202	159,554	2,054	807,826	246,081	4,449,944	7,083,938
Oregon	3,088	33,422,396	1,280	1,323,155	17,236	8,333,433	2,242,795	26,108,313	46,000,587
Pennsylvania	52,185	1,551,548,712	47,439	48,605,173	733,834	332,072,670	134,344,269	1,042,434,599	1,834,790,860
Rhode Island	4,189	183,784,587	4,433	5,552,189	98,813	41,114,084	12,199,283	96,392,661	184,074,378
South Carolina	3,762	67,356,465	1,525	1,327,052	48,135	9,455,900	3,111,587	34,027,795	58,748,731
South Dakota	1,639	7,578,895	311	184,233	3,121	1,544,409	471,528	7,827,110	12,231,239
Tennessee	8,016	71,814,038	3,673	3,261,347	50,504	16,647,638	6,235,557	63,857,511	108,144,565
Texas	12,289	90,433,882	12,289	90,433,882	48,153	20,552,355	6,144,924	67,102,769	119,414,982
Utah	1,400	14,650,948	740	566,165	6,615	3,388,370	929,173	12,853,954	21,156,183
Vermont	4,071	48,547,964	1,772	1,620,876	29,455	12,237,684	3,482,448	29,858,824	57,623,815
Virginia	8,248	103,670,988	4,198	3,846,072	72,702	22,445,720	12,264,602	74,851,757	132,172,910
Washington	3,631	52,649,760	2,242	2,164,024	33,806	19,106,873	3,860,455	49,099,182	86,795,051
West Virginia	4,418	55,904,238	1,857	1,570,797	33,272	12,969,237	3,945,814	43,006,880	74,838,330
Wisconsin	16,187	330,568,779	10,760	10,608,383	142,076	58,407,597	30,935,354	208,838,167	360,818,942
Wyoming	334	2,411,435	98	99,777	2,241	1,386,140	178,532	1,885,449	4,301,240
Totals	512,731	$9,846,628,564	397,748	$404,852,835	5,321,389	$2,330,578,010	$1,028,908,911	$7,360,093,418	$13,039,279,566

MANUFACTURES OF THE UNITED STATES

[*From Census Reports.*]

	1900.	1890.	1880.	1870.	1860.	1850.
Number of establishments	512,734	355,415	253,852	252,148	140,433	123,025
Capital invested	$9,846,628,564	$6,525,156,486	$2,790,272,606	$2,118,208,769	$1.009,855,715	$533,245,351
Number of salaried officials	397,748	[1] 461,009	....	....	....	....
Salaries paid	$404,852,838	$391,988,208	....	....	....	....
Number of wage-earners	5,321,389	4,251,613	2,732,595	2,053,996	1,311,246	957,059
Wages paid	$2,330,578,010	$1,890,228,321	$947,953,795	$775,584,343	$378,878,966	$236,755,464
Miscellaneous expenses	$1,028,908,911	$631,225,035	....	....	....	....
Cost of materials used	$7,360,993,418	$5,162,044,076	$3,396,823,549	$2,488,427,242	$1,031,605,032	$555,123,822
Value of products	$13,039,279,566	$9,372,437,283	$5,369,579,191	$4,232,325,442	$1,885,861,676	$1,019,106,616
Total population	74,803,609	62,347,203	49,995,778	38,456,839	31,303,834	23,130,329

[1] Includes owners and firm members.

PROGRESS OF COTTON SPINNING IN THE COTTON STATES.

STATES.	NUMBER OF SPINDLES.		NUMBER OF MILLS IN OPERATION.				NEW MILLS, 1900.		
	1890	1900	1890	1897–1898	1898–1899	1899–1900	Completed, etc.	Projected.	Total.
Alabama	79,234	437,200	13	37	38	44	5	5	10
Arkansas	66,980	17,160	1	2	3	4	1	....	1
Louisiana		62,222	2	3	3	5	3	....	3
Missouri		15,744	1	3	3	4	....	....	....
Texas		60,876	1	4	5	6	3	3	6
Georgia	445,452	969,364	53	77	79	86	28	13	41
Kansas	....	2,000	....	....	....	1	....	....	....
Kentucky	42,942	68,730	5	11	11	10	....	....	....
Mississippi	57,004	88,584	9	7	7	10	7	2	9
North Carolina	337,786	1,264,509	91	161	169	190	28	6	34
South Carolina	332,784	1,693,649	34	76	80	93	25	2	27
Tennessee	97,524	155,997	20	29	29	32	5	3	8
Virginia	94,294	165,452	9	15	17	15	....	....	....
Total	1,554,000	5,001,487	239	425	444	500	105	34	139

COTTON GINNERIES IN THE UNITED STATES, FROM TWELFTH CENSUS.

STATES AND TERRITORIES.	NUMBER OF GINNERIES.				Average Number of Months in Operation for Crop of 1899.	STATES. AND TERRITORIES.	NUMBER OF GINNERIES.				Average Number of Months in Operation for Crop of 1899.
	Total.	Operated for—					Total.	Operated for—			
		The Public Only.	The Plantation Only.	Both.				The Public Only.	The Plantation Only.	Both.	
Total	29,620	6,468	2,863	20,289	3	Louisana	2,148	190	361	1,597	3
						Mississippi	3,976	519	580	2,877	4
Alabama	4,034	792	391	2,851	3	Missouri	56	40	....	16	3
Arkansas	2,630	668	133	1,829	3	North Carolina	2,573	431	278	1,864	3
Florida	236	73	10	153	3	Oklahoma	133	109	....	24	3
Georgia	4,729	696	572	3,461	4	South Carolina	3,308	298	381	2,689	3
Indian Territory	297	215	6	76	4	Tennessee	834	255	45	534	3
Kansas	2	1	....	1	2	Texas	4,514	2,165	100	2,249	4
Kentucky	2	1	....	1	1	Virginia	88	15	6	67	3

NEEDLES AND PINS, QUANTITY AND VALUE.

[*From Twelfth* (1900) *Census.*]

KINDS.	Gross Manufactured.	Value.
Knitting-machine latch	276,141	$414,504
Common household	324,476	399,252
Wax-thread sewing-machine	212,649	99,533
Knitting spring	307,266	114,660
Pins, common or toilet	47,338,429	465,605
Pins, hair	1,189,104	78,115
Pins, safety	1,640,284	354,294
Totals	51,288,349	$1,926,003

PAPER AND PULP INDUSTRY OF THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

Kinds.	No. of Establishments.	Quantity Made (Tons).	Value of Product.
News paper	121	569,212	$20,091,874
Book paper	164	351,702	24,870,951
Writing paper	94	112,707	15,895.974
Wrapping paper	337	535,252	24,542,373
Boards	226	365,617	10,353,319
Blotting, roofing, etc.	215	233,103	12,114,555
Ground pulp	168	586,374	4,433,699
Soda fiber	34	171,959	3,612,602
Sulphite fiber	69	416,230	10,543,291
All other products	31	....	827,524
Totals	....	$3,342,156	$127,091,162

COKE PRODUCTION AND RANK OF STATES.

[*From Census Reports.*]

The coke industry has come into existence within the last few decades. In 1880 there were in operation a total of 9,738 ovens, consuming 4,360,110 tons of coal, producing 2,752,475 tons of coke, valued at $5,359,489. In 1889 there were in operation 32,659 ovens, consuming 15,795,087 tons of coal, producing 10,008,169 tons of coke, valued at $16,494,454. In 1899 there were in operation 47,142 ovens, consuming 30,157,829 tons of coal, producing 19,640,798 tons of coke, valued at $34,633,418, or $1.76 per ton. The production and rank by States are as follows:

States and Territories.	Rank.			Tons of Coke.		
	1899.	1889.	1880.	1899.	1889.	1880.
The United States	....	....	......	19,640,798	10,008,169	2,752,475
Pennsylvania	1	1	1	13,245,594	7,372,653	2,31714
West Virginia	2	3	3	2,278,679	612,645	95,720
Alabama	3	2	6	1,787,809	1,055,823	42,035
Virginia	4	6	......	618,707	(1)	....
Colorado	5	5	7	503,543	199,638	18,000
Tennessee	6	4	4	380,525	356,964	91,675
Massachusetts	7	....	......	330,770	....	....
Ohio	8	8	2	83,878	75,826	109,296
Kentucky	9	12	......	81,095	13,021	....
Montana	10	10	......	56,376	(1)	....
Georgia	11	7	5	50,907	(1)	70,000
New Mexico	12	....	......	44,134	....	....
Wisconsin	13	9	......	33,437	(1)	....
Washington	14	17	......	30,372	(1)	....
New York	15	....	......	28,416	....	....
Utah	16	18	......	26,881	(1)	....
Indian Territory	17	15	......	24,339	(1)	....
Wyoming	18	....	......	15,630	....	....
Kansas	19	11	......	14,476	13,910	....
Missouri	20	16	......	2,860	5,275	....
Indiana	21	14	9	2,105	8,301	1,000
Illinois	22	13	9	265	(1)	7,600
All other States and Territories[2]	....	....	......	....	294,113	....

[1] Included in "All other States."

[2] Includes Georgia, Illinois, Indian Territory, Montana, Utah, Virginia, Washington, and Wisconsin.

COTTON SPINDLES IN SOUTHERN MILLS, AND THEIR CONSUMPTION OF COTTON.

Years.	Number of Spindles.	Bales of Cotton Used.	Years.	Number of Spindles.	Bales of Cotton Used.
1880–81	610,000	205,000	1890–91	1,756,047	605,916
1881–82	680,000	238,000	1891–92	1,938,524	681,471
1882–83	860,000	331,000	1892–93	2,082,197	733,701
1883–84	1,100,000	334,000	1893–94	2,167,242	723,329
1884–85	1,150,000	266,000	1894–95	2,379,281	853,352
1885–86	1,200,000	340,000	1895–96	2,770,284	915,810
1886–87	1,225,000	397,929	1896–97	3,197,545	1,024,482
1887–88	1,177,901	443,373	1897–98	3,574,754	1,227,939
1888–89	1,344,576	486,603	1898–99	3,832,201	1,400,026
1889–90	1,554,000	526,856	1899–1900	4,298,188	1,477,775

SHIPBUILDING INDUSTRY OF THE UNITED STATES.

[*From Census Reports.*]

	1900	1890	1880	1870	1860	1850
Number of establishments	1,116	1,006	2,188	964	[1]675	953
Capital	$77,362,701	$27,262,892	$20,979,874	$11,463,076	$5,952,665	$5,373,139
Salaried officials, clerks, etc., number	1,407	[2]1,123	(3)	(3)	(3)	(3)
Salaries	$2,008.537	[2] $1,194,870	(3)	(3)	(3)	(3)
Wage-earners, average number	46,781	22,143	21,345	13,915	10,071	12,976
Total wages	$24,839,163	$13,083,949	$12,713,813	$7,073,400	$4,539,313	$6,055,884
Men, sixteen years and over	45,744	21,960	21,338	13,814	10,070	12,962
Wages	$24,636,612	$13,055,083	(3)	(3)	(3)	(3)
Women, sixteen years and over	34	9		6	1	14
Wages	$11,424	$2,522		(3)	(3)	(3)
Children, under sixteen years	1,003	174	7	95	(3)	(3)
Wages	$191,127	$26,344	(3)	(3)	(3)	(3)
Miscellaneous expenses	$3,685,661	$1,392,551	(4)	(4)	(4)	(4)
Cost of materials used	$33,486,772	$16,521,246	$19,736,358	$9,379,980	$5,788,676	$7,420,496
Value of products, including repairing	$74,578,158	$38,065,410	$36,800,327	$21,483,967	$13,424,037	$16,937,525

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900.
[3] Not reported separately.
[4] Not reported.

OLEOMARGARINE INDUSTRY IN THE UNITED STATES.

[*Twelfth* (1900) *Census.*]

In 1890 twelve establishments reported as engaged in the manufacture of oleomargarine, with a total product valued at $2,988,575. The report for the census year 1900 was as follows:

MATERIALS USED.	Quantity (Pounds).	Cost.	Product (Pounds).	Value of Product.
Milk and cream	23,684,395	579,068		
Oleo oil	33,724,621	2,744,235		
Neutral lard	37,651,741	2,976,870		
Cottonseed oil	11,818,921	567,790		
Butter	396,956	61,176		
Salt	6,962,233	58,887		
Color	204,418	52,078		
Sugar	137,842	7,084		
Glucose	32,965	494		
Stearin and oleo stock	134,541	4,320		
Fuel, power, heat		49,855		
Mill supplies		5,475		
All other materials		501,107		
Freight		50,792		
Totals	114,748,633	$7,639,501	104,633,214	$12,286,375

BOOT AND SHOE MATERIALS USED DURING CENSUS YEAR.

[*From Twelfth* (1900) *Census.*]

	Number of Establishments.	Unit of Measure.	Quantity.	Cost of Materials Used.
Materials:				
Total				$169,604,054
Sole leather	946	Pounds	178,504,837	$39,192,300
Split leather	273	Pounds	15,817,460	3,109,729
Calf and kip skins	420	Pounds	10,569,581	7,069,408
Grain and other side leather	587	Square feet	131,542,365	15,950,818
Goatskins	1,019	Square feet	233,050,841	35,398,638
All other upper material	881	Square feet	98,866,823	15,578,659
Sheep and leather linings and trimmings	1,322			7,429,156
Cut soles, taps, heels, etc., purchased	986			17,248,898
Findings, purchased	1,553			12,902,750
Fuel, rent of power and heat, mill supplies, freight, and all other materials				15,723,698

BOOT AND SHOE PRODUCTS DURING CENSUS YEAR.

[*From Twelfth* (1900) *Census.*]

	Number of Establishments.	Unit of Measure.	Quantity.	Value of Products.
Products:				
Total			219,235,419	$261,028,580
Men's boots and shoes	561	Pairs	68,042,839	$108,705,938
Boys' and youths' boots and shoes	389	Pairs	21,080,479	20,799,297
Women's boots and shoes	589	Pairs	65,372,653	82,504,303
Misses' and children's boots and shoes	552	Pairs	42,043,202	30,319,611
Men's and boys' and youths' slippers	136	Pairs	4,456,965	2,812,213
Women's, misses' and children's slippers	279	Pairs	12,655,876	10,146,393
All other kinds	127	Pairs	5,583,405	2,491,511
All other products	161			2,175,738
Amount received for custom or contract work	148			1,073,576

NUMBER OF ACTIVE COTTON SPINDLES IN THE TEXTILE INDUSTRY, BY STATES, GEOGRAPHICALLY ARRANGED

[*From Census Reports.*]

STATES.	1900.						1890
	Total.	In Cotton Mills.	In Hosiery and Knit-Goods Mills.	In Worsted Mills.	In Woolen and Carpet Mills.	In Cotton Small Wares and Cordage and Twine Factories.	Total.
United States	19,472,232	19,008,352	206,698	95,356	59,460	102,366	14,384,180
New England States	13,171,377	12,850,987	137,376	95,356	27,344	60,314	10,934,297
Maine	848,377	841,521			3,584	3,272	892,762
New Hampshire	1,249,875	1,243,355	6,320				1,198,643
Vermont	100,028	100,028					71,591
Massachusetts	7,932,883	7,784,687	91,356	50,080	3,760	3,000	5,872,852
Rhode Island	1,976,198	1,880,622		45,276	10,000	40,300	1,959,294
Connecticut	1,064,016	1,000,574	39,700		10,000	13,742	939,155
Middle States	1,721,347	1,647,251	52,712		20,184	1,200	1,716,019
New York	764,492	720,268	38,404		5,820		629,324
New Jersey	431,730	431,730					374,442
Pennsylvania	336,509	306,637	14,308		14,364	1,200	496,551
Delaware	34,552	34,552					53,916
Maryland	154,064	154,064					161,786
Southern States	4,354,034	4,298,188	16,610		5,000	34,236	1,563,598
Virginia	132,707	126,827	5,880				94,294
North Carolina	1,137,328	1,133,432	2,860			1,036	344,606
South Carolina	1,436,969	1,431,349	5,620				332,784
Georgia	832,321	815,545				16,776	445,452
Kentucky	66,633	66,633					42,942
Tennessee	130,296	123,896			5,000	1,400	98,324
Alabama	419,968	411,328				8,640	79,362
Mississippi	78,146	75,122				3,024	57,004
Arkansas	13,060	9,700				3,360	5,780
Louisiana	57,850	55,600	2,250				48,050
Texas	48,756	48,756					16,000
Western States	225 474	211,926			6,932	6,616	177,266
Ohio	4,600					4,600	16,580
Indiana	108,988	102,488			6,500		80,604
Illinois	31,488	31,488					21,800
Wisconsin	21,496	21,496					32,592
Iowa							6,000
Missouri	13,654	13,654					6,690
Nebraska	15,488	15,488					
Utah	432				432		
Colorado	17,312	17,312					
Kansas	2,016					2,016	
California	10,000	10,000					6,000

COTTON MANUFACTURES OF THE UNITED STATES.

[*From Census Reports.*]

	1900			1890.
	Cotton Goods.	Cotton SmallWares.	Total for 1900.	
Number of establishments	973	82	1,055	905
Capital invested	$460,842,772	$6,397,385	$467,240,157	$354,020,843
Salaried officials	4,713	189	4,902	2,709
Salaries paid	$7,123,574	$226,625	$7,350,199	$3,464,734
Wage-earners	297,929	4,932	302,861	218,876
Wages paid	$85,126,310	$1,563,442	$86,689,752	$66,024,538
Miscellaneous expenses	$21,650,144	$462,534	$22,112,678	$16,716,524
Cost of materials	$173,441,390	$3,110,137	$176,551,527	$154,912,979
Value of products	$332,806,156	$6,394,164	$339,200,320	$267,981,724
Number of active spindles	19,008,352	42,600	19,050,952	14,188,103
Number of looms	450,682	5,070	455,752	324,860
Cotton consumed, bales	3,639,495	7,213	3,646,708	2,261,600
Cotton consumed, pounds	1,814,002,512	3,640,878	1,817,643,390	1,117,945,776

STEAM-CAR INDUSTRY IN THE UNITED STATES

[*From Twelfth* (1900) *Census.*]

	1900.			1890.
	Steam-Cars, not including Operations of Railroad Companies.	Steam-Car Construction and Repairs by Steam Railroad Companies.	Total for 1900.	
Number of establishments	65	1,296	1,361	787
Capital invested	$88,323,852	$119,580,273	$207,904,125	$119,833,687
Salaried officials	1,366	7,096	8,462	2,661
Salaries paid	$1,538,132	$6,210,247	$7,748,379	$2,343,944
Wage-earners	33,453	173,652	207,105	137,986
Wages paid	$16,987,294	$96,062,329	$113,049,623	$76,290,262
Miscellaneous expenses	2,837,229	6,293,987	9,131,216	1,725,113
Cost of materials	61,742,747	109,539,013	171,281,760	111,236,012
Value of products	90,510,180	218,238,277	308,748,457	199,545,435

CHEMICALS AND ALLIED PRODUCTS IN UNITED STATES

[*From Twelfth* (1900) *Census.*]

Products.	1890.		1900.	
	Qunatity.	Value.	Quantity.	Value.
Total		$163,547,685		$221,217,217
Alum, pounds	93,998,008	$1,616,710	179,467,471	2,446,576
Coal-tar products		687,591		1,421,720
Dyeing and tanning extracts and sumac, pounds	187,906,911	8,857,084	169,525,536	7,767,220
Gunpowder and other explosives, pounds	125,645,912	10,993,131	215,590,719	16,950,976
Fertilizers, tons	1,898,806	35,519,841	3,091,717	45,911,382
Paints, colors, and varnishes		52,908,252		71,313,392
Potash and pearlash, pounds	5,106,939	197,507	3,864,766	178,180
Sodas, pounds	333,124,375	5,432,400	1,279,082,000	10,237,944
Sulphuric acid, 50°, pounds	1,009,863,407	4,307,067	1,906,878,903	7,965,832
Sulphuric acid, 60°, pounds	20,379,908	122,940	34,023,131	246,284
Sulphuric acid, 66°, pounds	354,533,657	3,249,466	754,558,455	6,035,069
Wood alcohol and acetate of lime		1,885,469		5,775,290
Chemicals (including all acids, bases, and salts not heretofore enumerated)		24,751,974		[1] 40,791,690
All other products		13,018,253		4,175,656

[1] Including essential oils, $859,401.

PEN AND PENCIL INDUSTRY IN THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

	Total.	Pens, Fountain and Stylographic.	Pens, Gold.	Pens, Steel.	Pencils, Lead.
Number of establishments	55	23	22	3	7
Capital	$3,671,741	$590,629	$496,246	$357,460	$2,227,406
Land	$212,950	$8,150	$33,000	$20,000	$151,800
Buildings	$317,132	$13,632	$7,000	$43,000	$253 500
Machinery, tools, and implements	$535,574	$79,074	$129,775	$82,000	$244,725
Cash and sundries	$2,606,085	$489,773	$326,471	$212,460	$1,577,381
Salaried officials, clerks, etc., number	240	84	62	13	81
Salaries	$281,636	$80,808	$67,522	$21,416	$111,890
Wage-earners, average number	3,331	318	378	473	2,162
Total wages	$1,192,405	$141,012	$229,679	$138,433	$683,281
Miscellaneous expenses	$471,655	$113,334	$42,740	$37,405	$278,176
Cost of materials used	$1,747,852	$351,932	$312,537	$52,466	$1,030,917
Value of products	$4,222,148	$906,454	$799,078	$294,340	$2,222,276

TURPENTINE, ROSIN AND TAR INDUSTRY OF THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

	United States.	Alabama.	Florida.	Georgia.	Louisiana.	Mississippi.	North Carolina.	South Carolina.
Number of establishments	1,503	152	366	524	10	145	174	132
Capital	$11,847,495	$1,176,391	$5,526,618	$3,785,432	$74,539	$798,373	$217,423	$268,719
Salaries paid	778,694	67,062	306,351	320,265	3,490	67,775	5,460	8,291
Wages paid	8,393,483	780,573	3,049,200	3,772,848	54,180	530,410	70,697	135,575
Cost of materials	6,186,492	650,681	1,222,932	2,292,665	33,275	697,539	818,139	471,271
Total value of products	20,344,888	2,033,705	6,469,605	8,110,468	115,324	1,772,435	1,055,695	787,656
Spirits of turpentine								
Barrels	754,670	74,078	236,778	305,791	4,304	64,267	39,883	29,569
Value	$14,960,235	$1,460,582	$4,800,033	$6,024,054	$85,415	$1,253,934	$792,772	$563,445
Rosin:								
Barrels	2,563,087	245,394	772,357	950,582	14,055	241,607	218,899	120,013
Value	$5,129,268	$490,882	$1,639,472	$2,055,550	$27,319	$461,165	$271,352	$183,528
Value of all other products	255,385	82,241	30,100	30,864	2,590	57,336	11,571	40,683

POWER USED IN MANUFACTURING.

[*From Census Reports.*]

The following table, compiled from the respective censuses, shows the different kinds and aggregate of the motive power employed in manufacturing establishments in the United States.

	1900.	1890.	1880.	1870.
Number of manufacturing establishments	512,254	355,415	253,852	252,148
Number reporting power	169,409	100,735	85,923	....
Total horse-power	11,300,081	5,954,655	3,410,837	2,346,142
Steam engines:				
Number	150,100	91,410	56,483	....
Horse-power	8,742,416	4,581,595	2,185,458	1,215,711
Gas engines				
Number	14,884	....	....	....
Horse-power	183,850	8,930	....	....
Water wheels:				
Number	39,182	39,008	55,404	....
Horse-power	1,727,258	1,255,206	1,225,379	1,130,431
Electric motors:				
Number	16,923	....	....	....
Horse-power	311,016	15,969	....	....
Other power:				
Number	2,144	....	....	....
Horse-power	54,490	4,784	....	....
Rented horse-power	321,051	88,571	....	....

GLASS MANUFACTURES BY STATES

[*From Twelfth* (1900) *Census Report.*]

STATES.	No. of Establishments.	Capital.	Salaried Officials.	Salaries Paid.	Wage-Earners.	Wages Paid.	Miscellaneous Expenses.	Cost of Materials.	Value of Products.
Illinois	6	$2,181,801	75	$110,100	3,304	$1,621,286	$210,588	$764,008	$2,834,398
Indiana	110	12,775,389	509	649,227	13,015	7,226,047	690,165	4,582,141	14,757,883
Maryland	7	581,086	31	38,976	742	339,518	26,065	151,500	557,895
Massachusetts	5	258,949	39	28,060	387	188,674	14,243	137,185	418,458
Missouri	3	2,198,316	26	47,448	650	341,375	98,119	231,515	765,564
New Jersey	26	5,397,662	317	284,960	5,383	2,462,745	241,655	1,488,700	5,093,822
New York	27	2,242,834	117	139,698	2,556	1,305,264	145,505	899,590	2,756,978
Ohio	28	5,451,513	199	249,029	4,546	2,067,384	155,512	1,253,164	4,547,083
Pennsylvania	119	28,287,187	842	1,110,383	19,420	10,287,491	1,867,879	6,435,463	22,011,130
West Virginia	16	1,338,084	85	97,551	1,949	789,422	112,791	593,251	1,871,795
All other States	8	711,082	28	36,944	866	455,504	26,019	284,492	924,706
Total for United States	355	$61,423,903	2,268	$2,792,376	52,818	$27,084,710	$3,588,641	$16,731,009	$56,539,712

CLOTHING MANUFACTURES OF THE UNITED STATES

[*From Census Reports.*]

These statistics are for the manufacture of clothing as a factory product.

	Year.	Men's Clothing.	Women's Clothing.	Miscellaneous.	Total for United States.
Number of establishments	1900	29,470	17,180	1,847	48,497
	1890	20,113	20,811	1,561	42,485
Capital	1900	$213,510,177	$62,246,765	$109,212,692	$384,969,634
	1890	209,125,560	34,142,625	68,552,432	311,820,617
Salaried officials	1900	18,326	7,623	4,257	30,206
	1890	29,563	21,844	3,013	54,420
Salaries paid	1900	$17,618,002	$7,324,276	$4,823,717	$29,765,995
	1890	26,697,789	12,612,317	3,286,089	42,596,195
Wage earners	1900	259,751	129,334	117,224	506,309
	1890	269,255	87,762	89,205	446,222
Total wages paid	1900	$100,540,110	$46,938,554	$39,516,904	$186,995,586
	1890	102,985,835	28,574,006	30,514,863	162,074,704
Miscellaneous expenses	1900	$59,614,238	$15,075,838	$9.253,711	$83,943,787
	1890	32,938,049	6,797,612	5,548,433	45,284,094
Cost of material	1900	$244,809,353	$101,208,346	$77,659,122	$423,676,821
	1890	210,410,586	57,671,048	54,912,708	322,994,342
Value of products	1900	$508,181,398	$207,695,573	$148,632,399	$864,509,370
	1890	441,532,354	125,235,751	110,088,308	676,856,413

QUANTITY OF TIN PLATES MANUFACTURED IN THE UNITED STATES,

[*Special Treasury Reports and Reports of American Iron and Steel Association.*]

YEAR.	Tin Plates.	Terne Plates.	Amount Made from American Black Plates.	Amount Made from Foreign Black Plates.	Total.
	Pounds net.	*Pounds net.*	*Pounds net.*	*Pounds net.*	*Pounds net.*
1892	4,539,590	9,107,129	9,296,553	4,350,166	13,646,719
1893	45,743,107	54,076,095	43,599,724	56,219,478	99,819,202
1894	81,609,765	57,613,702	85,968,202	53,255,265	39,223,467
1895	120,327,949	73,473,124	160,576,934	33,224,139	193,801,073
1896	212,589,181	94,639,440	303,002,098	4,226,523	307,228,621
1897	355,347,670	91,634,393	446,924,855	57,208	446,982,063
1898	......	......	......	......	732,289,600
1899	......	......	......	......	808,360,000
1900	......	......	......	......	677,969,600

QUANTITY AND VALUE OF TIN PLATES IMPORTED.

[*From National Bureau of Statistics.*]

YEAR ENDING JUNE 30.	UNITED KINGDOM.		ALL OTHER COUNTRIES.		TOTAL.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Pounds.*		*Pounds.*	
1869	181,390,272	$8,756,508	228,816	$10,873	181,619,088	$8,767,381
1870	150,773,504	7,599,291	159,264	8,937	150,932,768	7,608,228
1871	178,880,800	9,592,540	95,424	5,560	178,976,224	9,598,100
1872	196,012,992	12,277,813	509,712	34,615	196,522,704	12,312,428
1873	191,826,544	14,957,585	658,896	36,065	192,485,440	14,993,650
1874	169,278,032	12,989,973	40,880	2,950	169,318,912	12,992,923
1875	190,312,416	12,932,457	350,784	24,190	190,663,200	12,956,647
1876	198,269,456	10,003,707	41,216	2,092	198,310,672	10,005,799
1877	221,673,872	9,702,860	934,864	47,467	222,608,736	9,750,327
1878	236,524,960	9,561,852	8,296,400	367,646	244,821,360	9,929,498
1879	276,103,184	10,130,042	433,888	17,418	276,537,072	10,147,460
1880	371,104,832	16,870,954	8,798,048	352,312	379,902,880	17,223,266
1881	365,703,408	13,914,062	4,304,160	235,325	370,007,568	14,149,387
1882	429,610,384	16,151,891	11,318,944	447,373	440,929,328	16,599,264
1883	477,309,056	17,435,087	6,729,632	264,152	484,038,688	17,699,239
1884	506,364,102	18,120,544	1,530,654	62,093	507,894,756	18,182,637
1885	506,231,501	16,632,701	923,434	33,038	507,154,935	16,665,739
1886	569,488,534	17,580,033	2,764,165	74,532	572,252,699	17,654,565
1887	566,071,998	16,688,810	6,148,399	222,080	572,220,397	16,910,890
1888	632,614,482	18,898,315	2,330,463	81,029	634,944,945	18,979,344
1889	734,211,853	21,174,529	1,568,135	48,124	735,779,988	21,222,653
1890	678,933,940	20,891,062	1,126,985	37,088	680,060,925	20,928,150
1891	1,033,531,124	35,645,076	2,957,950	101,844	1,036,489,074	35,746,920
1892	421,838,482	12,304,233	337,720	11,329	422,176,202	12,315,562
1893	628,095,497	17,554,310	330,405	11,330	628,425,902	17,565,640
1894	453,880,341	11,961,524	280,485	7,994	454,160,826	11,969,518
1895	507,075,599	12,119,083	963,339	24,997	508,038,938	12,144,080
1896	383,882,250	8,915,083	1,756,733	35,573	385,138,983	8,950,656
1897	229,208,495	5,320,238	865,188	24,400	230,073,683	5,344,638
1898	170,872,133	3,786,626	790,212	22,522	171,662,345	3,809,148
1899	107,831,639	2,592,106	653,187	21,458	108,484,826	2,613,564
1900	147,321,985	4,772,629	641,819	27,167	147,963,804	4,799,796
1901	116,829,478	3,733,480	1,050,834	36,582	117,880,312	3,770,062

QUANTITIES OF CRUDE STEEL PRODUCED IN THE UNITED STATES,

[*Reports of American Iron and Steel Association.*]

CALENDAR YEARS.	Bessemer Ingots and Castings.	Open-Hearth Ingots and Castings.	Crucible Ingots and Castings.	All Other Steel.	Total.
	Tons.	*Tons.*	*Tons.*		*Tons.*
1867	2,679	....	16,964		19,643
1868	7,589	....	19,197		26,786
1869	10,714	893	19,643		31,250
1870	37,500	1,339	29,911		68,750
1871	40,179	1,785	31,250		73,214
1872	107,239	2,679	26,125	6,911	142,954
1873	152,368	3,125	31,059	12,244	198,796
1874	171,369	6,250	32,436	5,672	215,727
1875	335,283	8,080	35,180	11,256	389,799
1876	469,639	19,187	35,163	9,202	533,191
1877	500,524	22,349	36,098	10,647	569,618
1878	653,773	32,255	38,309	7,640	731,977
1879	829,439	50,259	50,696	4,879	935,273
1880	1,074,262	100,851	64,664	7,558	1,247,335
1881	1,374,247	131,202	80,145	2,720	1,588,314
1882	1,514,687	143,341	75,973	2,691	1,736,692
1883	1,477,345	119,356	71,835	4,999	1,673,535
1884	1,375,531	117,515	53,270	4,563	1,550,879
1885	1,519,430	133,376	57,599	1,515	1,711,920
1886	2,269,190	218,973	71,973	2,367	2,562,503
1887	2,936,033	322,069	75,375	5,594	3,339,071
1888	2,511,161	314,318	70,279	3,682	2,899,440
1889	2,930,204	374,543	75,865	5,120	3,385,732
1890	3,688,871	513,232	71,175	3,793	4,277,071
1891	3,247,417	579,753	72,586	4,484	3,904,240
1892	4,168,435	669,889	84,709	4,548	4,927,581
1893	3,215,686	737,890	63,613	2,806	4,019,995
1894	3,571,313	784,936	51,702	4,081	4,412,032
1895	4,909,128	1,137,182	67,666	858	6,114,834
1896	3,919,906	1,298,700	60,689	2,394	5,281,689
1897	5,475,315	1,608,671	69,959	3,012	7,156,957
1898	6,609,017	2,230,292	89,747	3,801	8,932,857
1899	7,586,354	2,947,316	101,213	4,974	10,639,857
1900	6,684,770	3,398,135	100,562	4,862	10,188,329

WOOL MANUFACTURES OF ALL CLASSES—KIND, QUANTITY AND VALUE OF PRODUCTS

[*From Census Reports.*]

Classes.	1900.		1890.	
	Quantities.	Values.	Quantities.	Values.
Woolen, worsted, union, and cotton warp cloths, coatings, cassimeres, jeans, etc., for men's wear, square yards	169 177,028	$97,852,209	122,064,528	$88,261,748
Woolen, worsted, union, and cotton warp overcoatings, cloakings, etc., for men's and women's wear, square yards	29,647,495	21,666,019	14,883,893	13,082,801
Woolens, worsted, union, and cotton warp dress goods, sackings, tricots, opera flannels, cassimeres, buntings, ladies' cloth, alpaca, etc., for women's wear, square yards	155,767,439	45,278,216	127,259,709	32,285,903
All wool, union, and cotton warp flannels, square yards	20,117,663	4,613,129	61,195,501	18,582,549
Satinets, square yards	13,051,729	2,873,181	18,630,656	4,296,082
Linings, Italian cloth, and lastings, square yards	10,157,039	2,228,434	4,585,080	1,255,520
Jersey cloth, square yards	2,784	1,010	7,476	13,636
Carriage cloths, square yards	1,220,408	696,999	1,282,921	626,791
Total of all the above piece goods, square yards	399,141,585	$175,209,197	349,909,764	$158,405,033
Woven shawls of wool or worsted, square yards	600,104	$500,523	4,758,652	$2,098,523
All wool, union and cotton warp blankets, square yards	18,155,505	5,200,959	20,793,644	7,153.900
All wool, union, and cotton warp horse blankets, square yards	7,315,304	1,740,988	5,507,074	1,721,516
Carriage robes, square yards	1,740,089	987,109	775,963	646,904
Total square yards	27,811,002	$8,429,579	31,835,333	$11,620,843
Woolen, worsted, and union upholstery goods, square yards	541,909	$786,461	4,131,288	$2,365,881
Braids and picture cords, etc., running yards	....	2,922,850	133,859,751	1,268,252
Total value	....	$3,709,311	....	$3,634,133
Ingrain carpets, two- and three-ply, and ingrain art carpets, square yards	42,352,500	$15,405,081	36,726,370	$15,924,452
Tapestry and body Brussels, tapestry velvet, Wilton, Axminster and Moquette carpets, running yards	32,423,833	21,036,996	36,536,565	27,125,980
Smyrna carpets, square yards	858,189	1,188,707	127,177	332,718
All other carpets, square yards	....	....	1,394,153	451,486
Smyrna rugs, square yards	2,793,472	2,491,911	1,430,036	2,368,000
All other rugs, square yards	6,195,054	3,460,077	133,767	261,781
Total value of carpets and rugs	....	$43,582,772	....	$46,464,417
Felt cloths, endless belts, trimmings, linings, etc., square yards	6,933,524	$3,078,949	6,662,759	$2,930,199
All other felts, value	....	2,285,340	....	1,284,325
Total value of felt goods	....	$5,364,289	....	$4,214,524
Wool hats, dozens	823,425	$3,166,761	1,046,481	$5,229,176
Wool hat bodies, dozens	56,006	120,262	....	....
Woolen and union or merino yarns, pounds	49,796,632	11,748,895	41,362,993	12,590,267
Worsted and mohair yarns, pounds	46,784,385	32,095,805	29,359,182	22,397,721
Cotton yarns, pounds	3,531,992	527,046	3,192,936	632,849
Wool rolls, nails, waste and all partly manufactured products, pounds	23,283,240	5,231,377	12,850,039	3,176,653
Total yarns, etc., value	....	$49,723,385	....	$38,797,490
Woolen, merino and cotton half-hose, dozens	4,290	$13,520	2,438	$7,721
Woolen, merino and cotton hose, dozens	908	3,302	9,147	21,363
Gloves and mittens, dozens	1,238	4,641	1,931	6,950
Total value of hosiery and knit goods	....	$21,463	....	$36,034
All other products, value	....	6,170,673	....	1,971,524
Contract work, value	....	1,613,054	....	154,337
Grand totals	....	$296,990,484	....	$270,527,511

LOCOMOTIVES BUILT IN THE UNITED STATES

[*Twelfth Census* (1900) *Report.*]

	Number.	Value.		Number.	Values.
Locomotives:			Other self-propelled engines:		
Simple steam	2,502	$26,000,538	Traction engines	6,132	$6,385,026
Compound	329	3,988,045	Motor vehicles	4,192	4,899,443
Compressed air	55	115,802	Steam road-rollers	130	345,881
Electric	155	288,071			
Gas	5	5,000	Grand Totals	13,500	$42,027,806
Totals	3,046	$30,397,456			

SALT MANUFACTURE IN THE UNITED STATES.

[*Twelfth* (1900) *Census Report.*]

STATES.	No. of Establishments.	Capital Invested.	Wages Paid.	Barrels Produced.	Value of Product.
California	24	$757,895	$109,774	640,420	$380.193
Kansas	8	960,733	168,034	1,645,350	717,449
Michigan	53	4,759,865	619,383	5,206,510	2,451,964
New York	38	17,231,864	542,909	4,894,852	2,698,571
Ohio	10	796,841	243,397	1,460,516	804,872
Oklahoma	4	2,555	1,100	4,856	4,329
Texas	3	327,036	66,079	312,436	256,900
Utah	5	646,850	23,702	235,671	139,488
West Virginia	4	331,200	54,805	221,534	130,492
Nevada	3	9,320	3,670	7,671	12,696
All other States	7	1,299,205	78,287	558,003	304,882
Totals	159	$27,123,364	$1,911,140	15,187,819	$7,901.836

MANUFACTURE AND CONSUMPTION OF SUGAR IN UNITED STATES, WITH IMPORTED AND DOMESTIC PRODUCTION,

[*From National Bureau of Statistics.*]

CALENDAR YEAR.	Refined Product of Sugar Imported [1]	DOMESTIC PRODUCT.					Total.	Consumption per Capita.
		Manufactured from Imported Molasses.[1]	Of Cane.	Of Maple.	Of Beet.	Of Sorghum and Other.		
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Pounds.*
1877	606,750	35,500	89,000	12,000	446	1,554	745,250	36.0
1878	649,872	40,000	71,000	11,000	223	1,377	773,472	36.2
1879	663,196	44,900	112,000	10,000	357	1,443	831,896	38.1
1880	805,045	50,617	88,822	10,000	357	1,943	956,784	42.7
1881	835,261	39,949	127,367	9,000	629	....	1,012,206	44.2
1882	973,720	64,456	76,372	20,000	446	....	1,134,994	48.4
1883	1,021,956	40,722	142,297	18,500	536	....	1,224,011	51.1
1884	1,098,090	50,000	135,243	25,000	737	313	1,309,383	53.4
1885	1,122,345	47,259	100,876	25,900	600	1,400	1,298,380	51.8
1886	1,232,755	72,613	135.158	18,000	754	....	1,459,280	56.9
1887	1,213,791	62,274	85,394	20,000	255	....	1,381,714	52.7
1888	1,270,629	58,840	167,814	20,000	1,640	360	1,519,283	56.7
1889	1,193,761	43,715	153,909	22,000	2,400	689	1,416,474	51.8
1890	1,257,292	53,282	136,503	25,000	2,800	1,500	1,476,377	52.8
1891	1,614,580	31,320	221,951	15,030	5,400	570	1,888,851	66.3
1892	1,597,306	30,000	204,064	9,500	12,000	500	1,853,370	63.8
1893	1,623,872	20,000	235,886	10,500	16,000	500	1,906,758	64.4
1894	1,700,635	15,000	271,336	5,000	20,443	300	2,012,714	66.7
1895	1,572,438	15.000	324,506	7,500	30,000	300	1,949,744	63.4
1896	1,670,963	603	243,220	5,000	40,000	300	1,960,086	62.5
1897	1,715,607	150	310,537	5,000	39,684	....	2,070,978	64.8
1898	1,708,937	1,700	252,812	5,000	34,453	....	2,002,902	61.5
1899	1,844,642	5,200	160,400	5,000	62,826	....	2,078,068	62.6
1900	1,950,014	7,647	174,450	5,000	82,736	....	2,219,847	65.2
1901	[2]1,932,330	17,977	292,150	5,000	124,859	....	2,372,316	68.4
1902	2,092,657	23,600	310,000	5,325	163,126	....	2,566,108	72.8

---

[1] Leading refiners state that little or no sugar is manufactured from domestic molasses; also that in refining there is only about 2 per cent waste of original weight. Messrs. Willett & Gray, New York, state that of the sugar consumed in 1901, only about 84,488 tons were unrefined.

[2] Includes 309,070 tons Hawaiian, 66,279 tons Porto Rican, and 5,100 tons Philippines.

PRODUCTION OF PIG IRON AND NUMBER OF FURNACES BY STATES, 1889–1901.

[*Reports of American Iron and Steel Association (tons of 2,240 pounds).*]

STATES.	1890. Tons.	1891. Tons.	1892. Tons.	1893. Tons.	1894. Tons.	1895. Tons.	1896. Tons.	1897. Tons.	1898. Tons.	1899. Tons.	1900. Tons.	1901. Tons.	Furnaces Erected Jan. 1902.	Furnaces in Blast Jan. 1902.
Alabama	816,911	795,673	915,296	726,688	592,392	854,667	922,170	947,831	1,033,676	1,083,905	1,184,337	1,225,212	45	29
Colorado	21,061	18,116	32,441	45,555	73,669	58,508	45,104	6,582	91,222	138,880	159,204	203,187	3	3
Connecticut	20,136	21,811	17,107	12,478	7,416	5,615	10,187	8,336	6,336	10,129	10,233	8,442	4	2
Georgia	29,185	49,858	9,950	39,675	40,268	31,034	15,593	17,092	12,362	17,835	28,984	27,333	5	1
Illinois	701,106	669,202	949,450	405,261	604,795	1,006,091	925,239	1,117,239	1,365,898	1,442,012	1,363,383	1,596,850	20	15
Indiana	14,641	7,729	7,700	5,567	....	....	....	....	....	....	....	....	.....	.....
Kentucky	47,861	44,844	56,548	47,501	33,854	63,780	70,660	35,899	100,724	119,019	71,562	68,462	8	4
Maine	1,071	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Maryland	147,821	123,398	99,131	151,773	5,600	10,916	79,472	193,702	190,947	234,477	290,073	303,186	6	4
Massachusetts	4,938	8,990	7,946	7,853	156	4,710	1,873	3,284	3,661	2,476	3,310	3,386	3	1
Michigan	230,769	213,145	184,421	117,538	95,171	91,222	149,511	132,578	147,640	134,443	163,712	170,762	8	5
Minnesota	....	1,226	14,171	10,373	....	....	....	....	....	....	....	....	1	.....
Missouri	89,776	29,229	57,020	32,360	6,522	27,518	12,548	23,883	49,788	With Colo.	With Colo.	....	2	1
New Jersey	158,739	92,490	87,975	74,305	63,273	55,502	59,163	95,696	100,681	127,598	170,262	155,746	11	6
New York	329,804	315,112	310,395	191,115	175,185	181,702	206,075	243,304	228,011	264,346	292,827	283,662	19	7
North Carolina	2,840	3,217	2,908	2,843	....	323	2,151	....	....	....	....	....	2	.....
Ohio	1,240,330	1,035,013	1,221,913	875,265	900,029	1,463,789	1,196,326	1,372,889	1,986,358	2,378,212	2,470,511	3,326,425	59	45
Oregon	10,987	9,205	7,628	4,739	1,000	....	....	....	....	....	....	....	1	.....
Pennsylvania	4,415,329	3,952,387	4,193,805	3,643,022	3,370,152	4,701,163	4,024,166	4,631,634	5,537,832	6,558,878	6,365,935	7,343,257	148	111
Texas	9,701	18,662	8,613	6,257	4,671	4,682	1,221	6,175	5,178	5,803	10,150	2,273	4	.....
Tennessee	267,626	291,738	300,081	207,915	212,773	248,129	248,338	272,130	263,439	346,166	362,190	337,139	21	12
Virginia	292,799	295,292	342,847	302,856	298,086	346,589	386,277	307,610	283,274	365,491	490,617	448,662	26	14
Washington	....	....	....	....	....	....	....	....	....	....	....	222	1	1
West Virginia	129,438	86,283	154,793	81,591	80,781	141,968	108,569	132,907	192,699	187,858	166,758	166,597	3	3
Wisconsin	219,854	197,160	174,961	131,772	91,595	148,400	158,484	103,909	172,781	203,175	184,794	207,551	6	2
Totals	9,202,703	8,279,870	9,157,000	7,124,502	6,657,388	9,446,308	8,623,127	9,652,680	11,773,934	13,620,703	13,789,242	15,878,354	406	266

Pig iron production (1902), 17,608,320 tons; value, $289,304,796; (1903), 18,297,400 tons.

MARVELS of IRON ORE.

$0.75 WORTH OF IRON ORE BECOMES WORTH

$5.00 when converted into bar iron.

$10.00 when converted into horse shoes.

$150.00 when converted into table knives.

$6,800 when converted into needles.

$30,000 when converted into fancy buttons.

$300,000 when converted into watch springs.

$400,000 when converted into hair springs.

Composition of Metals.

BATH METAL IS	COPPER AND	TIN.
BELL METAL IS	COPPER AND	ZINC.
BRITANNIA METAL IS	ANTIMONY, COPPER,	BISMUTH & TIN.
CANNON METAL IS	COPPER AND	TIN.
COPPER (WHITE) IS	COPPER AND	ARSENIC.
DUTCH GOLD IS	COPPER AND	ZINC.
GERMAN SILVER IS	COPPER, NICKEL	TIN & ZINC.
GOLD (STANDARD) IS	GOLD AND	COPPER.
GUN METAL IS	COPPER AND	TIN.
PEWTER IS	LEAD AND	TIN.
SILVER (STANDARD) IS	SILVER AND	COPPER.
SOLDER IS	LEAD AND	TIN.
TYPE METAL IS	LEAD AND	ANTIMONY.

NAIL LENGTHS AND NUMBER PER POUND.

SIZE AND KIND	LENGTH	Nº to 1 LB
3d., FIRE BLUED	1⅛ IN.	825
3d., COMMON	1¼ "	400
4d., COMMON	1½ "	300
5d., COMMON	1¾ "	200
6d., COMMON	2 "	150
6d., CASING	2 "	210
6d., FINISHING	2 "	317
6d., CLINCH	2 "	118
6d., FENCE	2 "	80
8d., COMMON	2½ "	85
8d., CASING	2½ "	134
8d., FINISHING	2½ "	208
8d., CLINCH	2½ "	80
8d., FENCE	2½ "	50
10d., COMMON	3 IN.	60
10d., CASING	3 "	78
10d., FINISHING	3 "	126
10d., CLINCH	3 "	45
10d., FENCE	3 "	30
12d., COMMON	3¼ "	50
12d., FENCE	3¼ "	27
16d., COMMON	3½ "	40
16d., FENCE	3⅔ "	21
20d., COMMON	4 "	20
30d., COMMON	4½ "	16
40d., COMMON	5 "	14
50d., COMMON	5½ "	11
60d., COMMON	6 "	8

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES

[From United States Census Reports.]

As will be seen from this table the classifications were fuller in 1900 than in former censuses, and also the data.

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
All industries	1900	512,254	396,759	$403,711,233	5,308,406	$2,322,333,877	$9,817,434,799	$7,345,413,651	$13,004,400,143
	1890	355,415	461,009	391,988,208	4,251,613	1,891,228,321	6,525,156,486	5,162,044,076	9,372,437,283
	1880	253,852	....	......	2,732,595	947,953.795	2,790,272,606	3,396,823,549	5,369,579,191
Agricultural implements	1900	715	10,046	8,363,210	46,582	22,450,880	157,707,951	43,944,628	101,207,428
	1890	910	3,717	3,704,667	38,827	18,107.094	145,313,977	31,603,265	81,271,651
	1880	1,943	....	......	39,580	15,359,610	62,109,660	31,531,170	68,640,486
Ammunition	1900	33	204	370,568	5,231	2,560,954	6,719,081	7,436,748	13,027,635
	1890	35	109	140,531	2,158	969,951	4,368,529	2,759,782	6,538,959
	1880	4	....	......	1,066	361,778	824,000	1,223,452	1,904.966
Artificial feathers and flowers	1900	227	285	291,449	5,333	1,561,763	3,633,869	2,765,151	6,297,805
	1890	251	478	555,279	6,357	2,125,906	3,081,828	4,645,850	9,078,683
	1880	174	....	......	4,342	1,081,040	1,253,050	2,444,418	4,879,324
Artificial limbs	1900	87	81	57,651	249	146,620	290,104	126,062	749,854
	1890	59	88	86.932	162	102,438	186,896	93,795	475,977
	1880	33	....	......	72	43,833	82,600	31,370	137,024
Artists' materials	1900	21	32	37,858	200	79,267	376,736	249,107	497,046
	1890	39	64	83,145	242	102,196	361,460	190,850	531,785
	1880	....	....	......	......	......	......	......	......
Awnings, tents and sails	1900	858	450	347,357	4,400	2,038,613	4,342,728	6,480.685	11,728.843
	1890	581	737	626,506	3,135	1,581,729	3,063,009	4,150,180	7,829,003
	1880	151	....	......	1,268	334,463	522,700	1,230,558	1,968,942
Axle grease	1900	29	85	82,966	127	55,238	577,195	360,411	718,114
	1890	31	68	73,467	126	61,642	451,228	401,897	846.459
	1880	16	....	......	72	41,407	372,600	209,152	365,048
Babbit metal and solder	1900	51	145	172,423	535	294,584	3,115,568	7,998,369	9,191,409
	1890	36	88	103,946	173	84,283	954,654	2,385,894	2,905,102
	1880	9	....	......	44	18,745	73,100	214,193	262,950
Bags, other than paper	1900	78	342	386,055	4,039	1,133,128	7,696,732	16,849,311	20,123,486
	1890	80	285	317,385	6,633	2,049,839	9,347,787	15,178,265	20,207,805
	1880	64	....	......	5,451	1,603,785	4,917,400	10,085,787	13,238,253
Bags, paper	1900	63	394	415,500	2,029	683,783	6,900,291	4,659,001	7,359,975
	1890	56	182	180,378	1,200	399,714	2,321,797	3,167,717	5,023,793
	1880	80	....	......	1,569	439,620	1,304,700	3,037,319	4,112,566
Baking and yeast powder	1900	191	749	835,281	1,938	717,000	8,337,723	7,126,967	14,568,380
	1890	150	426	426,889	1,441	574,241	3,587,919	4,273,796	7,406,806
	1880	110	....	......	1,042	466,252	1,350,600	3,333,868	4,760,598
Baskets, rattan and willow ware	1900	550	185	142,921	4,396	1,280,511	2,989,568	1,398,374	3,851,244
	1890	403	429	265,114	3,303	1,004,021	2,702,713	1,398,483	3,633,592
	1880	304	....	......	3,119	657,405	1,852,917	867,031	1,992.851
Bells	1900	23	73	62,382	663	307,991	1,038,305	602,856	1,247,730
	1890	22	58	43,447	372	193,780	590,420	389,701	823.010
	1880	20	....	......	773	280,169	793,120	525,175	1,065.824
Belting and hose, leather	1900	105	443	484,874	1,667	913,937	7,410,219	7,500,413	10,623,177
	1890	93	279	334,139	1,342	780,615	4,973.420	6,132,704	8,633,634
	1880	96	....	......	1,227	606,087	2,748,799	5,019,853	6,525,737
Belting and hose, linen	1900	7	34	43,932	254	64,102	526,059	452,430	717,137
	1890	9	19	29,842	273	123,524	795,909	427,865	777,942
	1880	1	....	......	10	4,500	10,000	12,000	23,000
Belting and hose, rubber	1900	18	197	336,319	1,771	918,191	5,493,885	4,075,702	6,169,044
	1890	17	110	160,748	1,835	883,020	5,270,068	3,479,538	5,512,840
	1880	2	....	......	364	131,721	265,000	863,000	1,085,000
Bicycle and tricycle repairing	1900	6,388	296	145,558	5,749	2,505,974	6,760,070	5,224,886	13,766,033
	1890	83	94	59,542	212	102,141	172,070	67,332	301,709
	1880	....	....	......	......	......	......	......	......
Bicycles and tricycles	1900	312	2,034	1,753,235	17,525	8,189,817	29,783,659	16,792,061	31,915,908
	1890	27	128	123,714	1,797	982,014	2,058,072	718,848	2,568,326
	1880	....	....	......	......	......	......	......	......
Billiard tables and materials	1900	75	89	105,276	455	278,218	884,901	730,046	1,650,868
	1890	57	140	165,280	1,017	705,200	1,456,624	1,295,942	2,823,278
	1880	46	....	......	857	400,779	1,078,169	1,080,466	2,289,758
Blacking	1900	121	459	507,094	1,250	424,174	2,718,504	2,186,800	4,504,965
	1890	71	207	230,412	832	331,232	1,403,087	1,484,203	2,900,402
	1880	48	....	......	436	168,183	494,625	710,629	1,491,474
Blacksmithing and wheelwrighting	1900	51,771	339	217,718	36,193	17,974,264	54,976,341	24,701,632	85,791,630
	1890	28,000	24,328	13,297,189	26,539	13,499,738	34,500,139	14,645,096	54,304.639
	1880	38,802	....	......	50,634	16,200,800	30,259,932	21,276,040	62,667,129
Bluing	1900	65	54	41,000	220	79,380	415,119	244,970	575,804
	1890	53	77	56,561	155	47.633	184,472	186,588	457,251
	1880	23	....	......	146	50,245	178,650	197,463	344,824
Bone, ivory and lampblack	1900	15	21	23,650	85	46,107	782,247	105,712	359,787
	1890	24	62	64,247	323	152,041	1,627,651	485,867	1,031,030
	1880	18	....	......	224	80,249	627,350	440,068	661,376
Bookbinding and blank bookmaking	1900	954	1,076	1,077,790	15,971	6,671,666	12,744,628	7,702,543	20,790,858
	1890	805	1,342	1,395,468	12,473	5,508,483	10,062,034	6,007,417	17,067,780
	1880	588	....	......	10,612	3,927,349	5,798,671	5,195,771	11,976,764
Boot and shoe cut stock	1900	342	342	302,889	6,155	2,230,691	7,003,080	17,800,282	23,242,892
	1890	344	511	432,240	4,992	1,891,031	5,401,834	13,744,655	17,903,846
	1880	172	....	......	2,885	735,482	1,210,300	5,939,249	7,531,635

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Boot and shoe findings	1900	186	211	$177,929	2,993	$1,127,784	$3,277,958	$4,627,048	$7,145,820
	1890	138	202	175,864	2,081	596,073	1,793,123	1,965,173	3,459,328
	1880	135	....	......	1,498	451,075	770,800	1,188,817	2,144,945
Boot and shoe uppers	1900	133	16	7,897	256	125,627	273,796	401,680	700,225
	1890	317	355	289,012	1,353	609,324	1,216,026	1,902,926	3,346,002
	1880	81	....	......	437	170,425	209,264	448,104	790,842
Boots and shoes, custom work and repairing	1900	23,560	133	81,864	9,698	4,128,361	9,262,134	8,288,664	26,550,678
	1890	20,803	18,467	9,328,352	16,981	7,422,377	14,230,081	10,403,383	34,856,651
	1880	16,013	....	......	22,667	7,993,706	11,364,273	12,524,133	30,870,127
Boots and shoes, factory product	1900	1,600	7,843	7,757,749	142,922	59,175,883	101,795,233	169,604,054	261,028,580
	1890	2,082	5,643	5,707,931	133,690	60,667,145	95,282,311	118,785,831	220,649,358
	1880	1,959	....	......	111,152	43,001,438	42,994,028	102,442,442	166,050,354
Boots and shoes, rubber	1900	22	483	597,239	14,391	6,426,579	33,667,533	22,682,543	41,089,819
	1890	11	130	153,802	9,134	3,813,073	17,790,970	11,650,787	18,632,060
	1880	9	....	......	4,662	1,469,038	2,425,000	6,023,053	9,705,724
Bottling	1900	2,064	987	917,038	7,680	3,589,447	16,620,152	28,087,823	41,640,672
	1890	716	885	759,677	3,044	1,511,678	5,656,705	7,937,001	13,583,418
	1880	....	....	......	......	......	......	......	......
Boxes, cigar	1900	315	216	172,014	4,609	1,439,599	3,288,272	3,061,193	5,856,915
	1890	291	412	331,717	5,125	1,802,666	3,374,451	3,567,320	7,091,948
	1880	221	....	......	2,365	748,657	1,023.777	1,389,700	2,903,485
Boxes, fancy and paper	1900	729	1,368	1,269,358	27,653	8,151,625	14,979,305	11,765,424	27,316,317
	1890	588	1,005	1,042,801	18,949	5,827,099	9,277,973	7,893,941	18,805,330
	1880	369	....	......	9,678	2,373,948	2,496,496	3,578,827	7,665,553
Boxes, wooden packing	1900	896	1,043	979,632	22,034	7,827,955	21,952,757	22,807,627	38,216,384
	1890	636	916	861,418	13,006	5,615,707	13,018,456	14,244,503	25,513,180
	1880	602	....	......	7,772	2,769,135	5,304,212	7,674,921	12,687,068
Brass	1900	10	27	38,680	162	98,796	503,367	1,152,635	1,419,817
	1890	14	39	35,334	780	401,235	1,208,619	1,765,605	2,549,860
	1880	....	....	......	......	......	......	......	......
Brass and copper, rolled	1900	19	351	524,899	6,759	3,512,781	15,629,766	30,000,632	37,536,325
	1890	16	103	197,400	2,698	1,380,378	8,041,593	5,493,231	8,381,472
	1880	26	....	......	5,082	2,524,169	9,057,600	9,523,157	14,329,731
Brass castings and finishings	1900	442	860	1,044,546	11,964	6,070,762	21,925,039	18,871,141	30,343,044
	1890	453	960	1,164,156	10,943	5,758,333	18,663,286	12,249,607	24,344,434
	1880	396	....	......	6,237	2,729,794	5,740,237	5,894,452	10,808,742
Brassware	1900	204	502	596,412	7,668	3,550,074	12,194,715	9,830,319	17,140,075
	1890	113	361	499,989	7,157	3,557,069	10,866,001	7,089,202	13,615,172
	1880	20	....	......	1,142	411,329	594,582	948,118	1,523,098
Bread and other bakery products	1900	14,917	9,177	6,067,103	60,271	27,893,170	81,049,553	95,221,915	175,657,348
	1890	10,484	13,921	9,668,788	38,841	19,120,259	45,758,489	72,507,579	128,421,535
	1880	6,396	....	......	22,488	9,411,328	19,155,286	42,612,027	65,824,896
Brick and tile	1900	5,423	2,426	2,024,683	61,979	21,883,233	82,086,438	11,006,148	51,270,476
	1890	5,828	4,975	2,985,832	104,176	29,709.357	82,578,566	12,639,597	67,770,695
	1880	5,631	....	......	66,355	13,443,532	27,673,616	9,774,834	32,833,587
Bridges	1900	196	716	860,774	12,181	6,711,260	16,768,948	16,258,561	30,151,624
	1890	137	539	730,231	8,382	4,951,133	10,960,218	12,770,146	21,868,068
	1880	75	....	......	4,293	1,882,179	4,058,649	5,669,793	8,978,122
Bronze castings	1900	21	74	93,231	621	372,797	881,769	1,339,722	2,229,329
	1890	14	40	58,300	271	195,535	710,190	695,485	1,165,163
	1880	7	....	......	153	64,072	186,500	498,470	670,912
Brooms and brushes	1900	1,526	900	757,631	10,349	3,788,046	9,616,780	9,546,854	18,490,847
	1890	1,235	1,428	1,017,633	9,556	3,299,393	7,743,832	6,900,553	14,156,383
	1880	980	....	......	8,773	2,424,040	4,186,897	5,694,855	10,560,855
Butter, reworking	1900	10	29	30,319	148	67,747	255,525	1,345,418	2,114,935
	1890	....	....	......	......	......	......	......	......
	1880	....	....	......	......	......	......	......	......
Buttons	1900	238	339	296,358	8,685	2,826,238	4,212,568	2,803,246	7,695,910
	1890	106	205	262,787	3,831	1,411,089	3,089,265	1,551,603	4,216,795
	1880	124	....	......	5,825	1,645,130	2,013,350	1,792,891	4,449,542
Calcium lights	1900	19	6	6,192	55	24,418	95,114	34,982	118,666
	1890	15	17	15,418	80	34,152	73,402	35,048	110,062
	1880	4	....	......	20	10,912	19,500	25,031	51,443
Cardboard	1900	5	59	102,644	626	264,427	1,168,495	705,527	1,270,416
	1890	5	17	35,010	206	104,772	616,548	701,764	1,070,805
	1880	8	....	......	345	116,410	443,000	637,971	959,145
Card cutting and designing	1900	43	25	21,727	325	135,139	337,642	312,760	618,488
	1890	26	34	30,035	180	76,548	89,584	88,186	243,070
	1880	9	....	......	64	18,215	13,793	15,610	51,670
Carpentering	1900	21,315	2,701	2,228,434	123,985	71.049,737	71,327,047	142,419,410	316,101,758
	1890	16,917	17,069	15,169,168	122,952	79,355,029	81,542,845	137,847,002	281,195,162
	1880	9,184	....	......	54,138	24,582,077	19,541,358	51,621,120	94,152,139
Carpets and rugs other than rag	1900	133	687	881.398	28,411	11,121,383	44,449,299	27,228,719	48,192,351
	1890	173	385	510,857	28,736	11,122,259	38,208,842	28,644,905	47,770,193
	1880	195	....	......	20,371	6,835,218	21,468,587	18,984,877	31,792,802
Carpets, rag	1900	1,014	61	32,929	1,504	492.656	975,190	681,311	1,993,756
	1890	854	782	339,631	982	310,488	975,381	726,419	1,714,480
	1880	396	....	......	724	190,792	252.604	424,943	861,710
Carpets, wood	1900	31	49	34,950	608	362,112	412.357	418,343	1,056,702
	1890	6	19	18,464	309	136,932	333,000	210,814	511,700
	1880	5	....	......	119	23,750	41,600	23,500	102,170

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Carriage and wagon materials	1900	588	1,023	$1,002,199	15,387	$5,987,267	$19,085,775	$13,048,608	$25,027,173
	1890	339	932	842,194	9,996	4,366,233	13,028,161	7,387,904	16,262,293
	1880	412	....	......	7,502	2,733,004	7,034,718	4,781,095	10,114,352
Carriages and sleds, children's	1900	77	172	158,916	2,726	1,090,296	2,906,472	1,996,070	4,289,695
	1890	87	210	176,050	2,726	1,154,905	3,158,412	1,900,907	4,094,255
	1880	67	....	......	1,310	462,852	770,000	868,054	1,677,776
Carriages and wagons	1900	7,632	4,302	4,073,932	62,540	29,814,911	118,187,838	56,676,073	121,537,276
	1890	8,614	9,194	7,533,221	64,259	32,665,301	104,210,602	49,889,173	114,551,907
	1880	3,841	....	......	45,394	18,988,615	37,973,493	30,597,086	64,951,617
Cars, shop construction by steam railroad companies	1900	1,296	7,096	6,210,247	173,652	96,062,329	119,580,273	109,539,013	218,238,277
	1890	716	1,953	1,584,242	106,632	60,213,433	76,192,477	66,561,526	129,461,698
	1880	....	....	......	......	......	......	......	......
Cars, railroad and street, by other than steam railroad companies	1900	193	1,711	1,966,310	44,063	23,342,763	106,721,188	70,046,354	107,186,359
	1890	166	781	866,394	35,148	18,579,304	48.460,687	47,528,561	76,352,199
	1880	130	....	......	14,242	5,507,753	9,272,680	19,780,271	27,997,591
Celluloid and celluloid goods	1900	Included in "all other industries."				......	......	......	......
	1890	12	84	172,341	939	447,120	3,158,487	856,180	2,575,736
	1880	6	....	......	736	242,798	1,214,000	389,262	1,261,540
Charcoal	1900	183	23	15,986	1,786	431,381	811,225	405,339	1,133,638
	1890	....	....	......	......	......	......	......	......
	1880	175	....	......	1,401	390,697	457,484	320,735	975,540
Cheese, butter and condensed milk	1900	9,355	2,828	915,442	12,865	6,170,670	36,508,015	109,151,205	131,199,277
	1890	4,712	2,320	868,604	12,601	4,422,101	16,624,163	51,364,574	62,686,043
	1880	3,932	....	......	7,903	1,546,495	9,604,803	18,363,579	25,742,510
Chemicals	1900	459	2,123	2,923,033	19,054	9,401,467	89,091,430	34,564,137	62,676,730
	1890	563	1,914	2,383,432	15,038	7,308,411	55,032,452	33,694,927	59,352,548
	1880	595	....	......	9,724	4,222,663	28,983,458	24,665,766	38,640,458
China decorating	1900	169	38	26,346	360	148,004	372,017	261,819	693,800
	1890	78	114	91,904	353	162,620	499,647	364,778	847,555
	1880	....	....	......	......	......	......	......	......
Chocolate and cocoa products	1900	24	289	371,063	1,314	525,875	6,890,732	6,876,682	9,666,192
	1890	11	70	140,557	893	456,047	2,630,067	2,892,219	4,221,675
	1880	7	....	......	223	82,258	530,500	812,403	1,302,153
Cleansing and polishing preparations	1900	154	227	205,410	508	209,438	943,328	965,242	2,193,019
	1890	56	89	74,689	301	102,260	304,160	382,120	865,904
	1880	21	....	......	209	91,455	412,325	237,070	500,280
Clocks	1900	46	260	352,536	6,037	2,650,703	8,792,653	3,028,606	7,157,856
	1890	27	94	127,500	3,491	1,808,025	5.727,202	1,457,778	4,228,846
	1880	22	....	......	3,940	1,622,693	2,474,900	1,908,411	4,110,267
Cloth, sponging and refining	1900	46	39	34,924	534	268,191	288,894	17,490	566,000
	1890	23	42	43,672	351	200,630	229,335	34,132	399,814
	1880	20	....	......	176	62,790	137,350	71,960	222,560
Clothing, horse	1900	26	55	47,012	575	176,687	653,545	847,846	1,305,164
	1890	31	71	74,231	881	239,074	1,028,528	777,570	1,572,265
	1880	3	....	......	565	137,400	410,000	453,700	695,000
Clothing, men's	1900	28,014	14,150	13,723,046	191,043	79,434,932	173,034,543	197,742,067	415,256,391
	1890	18,658	26,587	23,675,358	217,270	87,714,314	182,552,938	179,425,661	378,022,815
	1880	6,166	....	......	160,813	45,940,353	79,861,696	131,363,282	209,548,460
Clothing, women's, dressmaking	1900	14,479	908	750,658	45,595	14,352,453	13,815,221	16,503,754	48,356,034
	1890	19,587	18,985	9,227,902	48,613	13,145,734	12,883,079	23,393,829	57,071,732
	1880	....	....	......	......	......	......	......	......
Clothing, women's, factory product	1900	2,701	6,715	6,573,618	83,739	32,586,101	48,431,544	84,704,592	159,339,539
	1890	1,224	2,859	3,384,514	39,149	15,428,272	21,259,528	34,277,219	68,164,019
	1880	562	....	......	25,192	6,661,005	8,207,273	19,559,227	32,004,794
Coffee and spice, roasting and grinding	1900	458	2,749	2,951,460	6,387	2,486,759	28,436,897	55,112,203	69,527,108
	1890	358	1,356	1,447,385	3,766	1,815,634	16,996,009	65,961,465	75,042,010
	1880	300	....	......	2,716	1,370,699	6,366,392	18,201,302	22,924,894
Coffins, trimmings, etc	1900	....	....	......	......	......	......	......	......
	1890	1,368	1,408	1,052,712	1,826	946,441	6,016,385	3,656,859	7,783,140
	1880	....	....	......	......	......	......	......	......
Coffins and undertakers' goods	1900	217	948	1,023,393	6,840	3,077,481	13,585,162	6,945,348	13,952,308
	1890	194	673	712,812	5,751	2,842,444	11,097,736	5,547,082	12,230,554
	1880	769	....	......	4,415	1,895,805	5,735,392	3,776,222	8,157,760
Coke	1900	241	915	797,296	16,999	7,085,736	36,502,679	19,665,532	35,585,445
	1890	218	161	113,632	8,998	4,072,632	17,462,729	11,509,737	16,498,345
	1880	149	....	......	3,142	1,198,654	5,545,058	2,995,441	5,359,489
Collars and cuffs, paper	1900	Included in "all other industries."				......	......	......	......
	1890	3	9	13,512	82	35,125	237,764	223,077	301,093
	1880	13	....	......	435	151,576	901,233	1,166,000	1,582,571
Combs	1900	34	71	57,541	1,399	572,467	832,791	951,514	1,976,129
	1890	31	65	68,321	742	364,715	742,200	344,120	1,020,835
	1880	38	....	......	1,026	374,785	533,390	341,719	951,395
Confectionery	1900	4,297	5,628	4,171,191	33,583	10,867,687	35,155,361	45,534,153	81,290,543
	1890	2,921	5,487	3,850,441	21,724	7,783,007	23,326,799	31,116,629	55,997,101
	1880	1,450	....	......	9,801	3,242,852	8,486,874	17,125,775	25,637,033
Cooperage	1900	2,146	838	843,668	22,938	9,200,303	22,568,873	23,299,312	40,576,462
	1890	2,652	2,097	1,609,117	22,955	10,056,249	17,806,554	20,636,911	38,617,956
	1880	3,898	....	......	25,973	8,992,603	12,178,726	18,441,064	33,714,770
Copper, smelting and refining	1900	47	488	954,905	11,324	8,529,021	53,063,395	122,174,129	165,131,670
	1890	....	....	......	......	......	......	......	......
	1880	....	....	......	......	......	......	......	......

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Year.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Cordage and twine	1900	105	436	$666,936	13,114	$4,113,112	$29,275,490	$26,632,006	$37,849,651
	1890	150	414	560,639	12,385	3,976,232	23,351,883	24,051,666	33,312,559
	1880	165	....	......	5,435	1,558,676	7,140,475	9,330,261	12,492,171
Cordials and syrups	1900	39	112	120,994	362	116,917	1,153,006	1,505,096	2,107,132
	1890	40	106	121,874	281	111,114	783,567	1,231,141	1,903,200
	1880	16	....	......	81	42,928	128,400	210,506	331,233
Corks, cutting	1900	62	136	195,468	2,340	687,796	2,683,683	2,403,829	4,392,364
	1890	65	119	125,649	2,019	636,869	1,869,360	1,501,902	2,840,359
	1880	46	....	......	792	232,846	872,384	976,274	1,566,555
Corsets	1900	216	842	986,424	12,729	3,791,509	7,481,048	6,555,467	14,878,116
	1890	205	442	553,776	10,928	3,509,039	6,640,056	5,662,140	12,401,575
	1880	113	....	......	8,802	1,745,969	1,611,695	3,686,821	6,494,705
Cotton, cleaning and rehandling	1900	Included in "all other industries."				......	......	......	......
	1890	13	14	10,820	196	43,248	116,210	415,005	525,595
	1880	....	....	......	......	......	......	......	......
Cotton, compressing	1900	111	407	346,321	2,742	738,288	8,323,558	353,910	2,629,590
	1890	52	215	187,811	2,785	1,040,808	7,864,373	254.309	2,624,027
	1880	29	....	......	1,008	573,095	2,248,800	326,808	1,271,700
Cotton, ginning	1900	11,369	1,174	129,964	14,135	1,930,039	23,228,130	3,912,303	14,748,270
	1890	1,637	740	130,913	6,920	650,885	3,221,987	542,481	2,367,450
	1880	....	....	......	......	......	......	......	......
Cotton goods	1900	1,055	4,902	7,350,199	302,861	86,689,752	467,240,157	176,551,527	339,200,320
	1890	905	2,709	3,464,734	218,876	66,024,538	354,020,843	154,512,979	267,981,724
	1880	1,005	....	......	185,472	45,614,419	219,504,794	113,765,537	210,950,383
Cotton waste	1900	26	65	93,505	1,116	336,827	2,560,759	4,950,490	5,880,024
	1890	31	50	51,216	279	103,041	711,956	1,592,041	1,906,122
	1880	....	....	......	......	......	......	......	......
Crucibles	1900	11	89	154,050	671	250,654	1,843,616	1,673,290	2,607,308
	1890	10	24	38,960	230	110,250	908.152	396,296	726,708
	1880	11	....	......	694	284,169	1,450,250	955,841	1,445,641
Cutlery and edge tools	1900	309	805	928,764	12,069	5,673,619	16,532,383	5,116,042	14,881,478
	1890	474	779	717,219	8,708	4,200,933	12,082,638	3,465,124	12,110,614
	1880	429	....	......	10,519	4,447,349	9,859,885	4,682,222	11,661,370
Dentistry, mechanical	1900	Included in other classifications.				......	......	......	......
	1890	3,214	3,251	2,712,788	1,486	768,401	4,019,637	1,475,255	7,864,299
	1880	753	....	......	541	269,044	773,670	455,037	1,860,647
Dentists' materials	1900	68	182	184,494	1,017	508,603	2,112,236	2,109,231	3,721,150
	1890	24	203	324,978	1,011	542,648	2,908,113	993,855	2,594,888
	1880	20	....	......	490	237,729	840,800	247,824	860,758
Druggists' preparations and prescript'ns	1900	250	2,046	2,274,940	5,766	2,041,061	16,320,120	11,022,417	23,192,785
	1890	1,805	1,909	1,099,014	2,031	839,686	4,624,814	2,411,851	6,659,797
	1880	....	....	......	......	......	......	......	......
Drug grinding	1900	26	102	126,623	644	291,823	2,837,911	3,315,228	4,308,144
	1890	13	25	28,883	148	74,711	337,885	192,321	436,766
	1880	....	....	......	......	......	......	......	......
Dyeing and cleaning	1900	1,810	595	292,460	5,424	2,271,066	4,673,211	1,434,292	7,567,358
	1890	976	1,198	820,169	3,991	1,717,387	3,041,178	1,103,556	5,267,819
	1880	303	....	......	1,467	511,886	851,110	581,886	1,613,943
Dyeing and finishing textiles	1900	298	1,318	2,267,128	29,776	12,726,316	60,643,104	17,958,137	44,963,331
	1890	248	666	805,291	19,601	8,911,720	38,450,800	12,385,220	28,900,560
	1880	191	....	......	16,698	6,474,364	26,223,981	13,664,295	32,297,420
Dyestuffs and extracts	1900	77	229	312,109	1,647	787,942	7,839,034	4,745,912	7,350,748
	1890	62	191	252,336	2,111	1,037,651	8,645,458	6,500,928	9,292,514
	1880	41	....	......	992	512,097	2,363,700	3,918,741	5,253,038
Electrical apparatus and supplies	1900	580	4,987	4,568,112	40,890	20,190,344	83,130,943	48,916,440	91,348,889
	1890	189	683	849,138	8,802	4,517,050	18,997,337	8,819,498	19,114,714
	1880	76	....	......	1,271	683,164	1,509,758	1,116,470	2,655,036
Electrical construction	1900	1,162	799	624,965	5,949	3,312,126	5,438,087	7,673,507	15,907,620
	1890	....	....	......	......	......	......	......	......
	1880	....	....	......	......	......	......	......	......
Electric light and power	1900	No report.		......	......	......	......	......	......
	1890	144	210	271,381	1,794	1,285,242	33,838,549	1,155,789	4,783,224
	1880	3	....	......	229	117,500	425,000	150,650	458,400
Electroplating	1900	432	123	98,076	2,275	1,036,750	1,460,692	836,726	3,007,455
	1890	313	397	368,723	1,765	891,752	2,051,134	1,048,057	3,121,642
	1880	221	....	......	1,441	620,848	865,898	663.588	1,975,700
Emery wheels	1900	34	125	126,577	546	303,091	1,489,527	508,753	1,381,675
	1890	17	47	47,244	245	135,356	823,059	186,579	726,425
	1880	11	....	......	112	58,253	397,900	109,952	322,022
Enameling and enameled goods	1900	129	303	304,950	7,675	2,259,003	9,184.178	5,466,971	9,798,509
	1890	46	70	72,464	508	224,133	422,715	171,658	626,884
	1880	22	....	......	387	98,762	295,200	306,379	504.269
Engravers' materials	1900	12	13	22,154	79	46,064	104,741	143,270	289,339
	1890	16	22	20,889	139	76,450	139,920	61,985	203,764
	1880	11	....	......	70	39,840	54,500	26,464	85,764
Engraving and die sinking	1900	414	68	63,773	1,034	572,874	790,461	225,637	1,683,690
	1890	382	467	472,422	1,168	696,651	794,554	434,506	2,187,157
	1880	246	....	......	852	419,646	416.840	262,828	1,180,165
Engraving, steel and plate printing	1900	286	313	338,347	3,299	2,006,824	5,061,520	1,206,462	5,068,558
	1890	134	264	305,178	2,296	1,576,405	2,924,125	742,765	3,347.804
	1880	55	...	......	1,916	1,951,745	2,387,050	648,994	2,998,616
Engraving, wood	1900	145	22	22,630	337	206,537	231,817	63,272	616,166
	1890	285	341	355,913	945	600,453	480,990	157,656	1,555,418
	1880	167	....	......	509	333,590	183,733	68,605	734,728

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Envelopes	1900	51	313	$316,360	2,984	$1,150,463	$5,612,509	$3,665,275	$6,299,336
	1890	41	176	246,006	2,325	812,544	3,218,466	2,530,793	4,855,686
	1880	12	. . . .	. . . . . .	1,204	344,143	923,800	2,346,500	3,000,617
Explosives	1900	97	768	914,447	4,502	2,383,756	19,645,846	10,334,974	17,125,418
	1890	69	197	309,008	2,353	1,240,502	13,539,478	5,481,723	11,352,615
	1880	54	. . . .	. . . . . .	1,340	675,414	6,585,185	3,271,549	5,802,029
Fancy articles, not otherwise specified	1900	392	714	614,732	5,718	1,921,578	5,081,806	4,061,400	9,046,342
	1890	377	558	444,836	3,396	1,234,982	2,386,317	1,844,556	4,810,456
	1880	151	. . . .	. . . . . .	2,793	1,036,672	1,359,450	1,065,335	2,817,230
Felt goods	1900	36	136	231,065	2,688	1,024,835	7,125,276	3,801,028	6,461,691
	1890	34	124	157,916	2,142	883,380	4,460.621	2,809,937	4,654,768
	1880	26	. . . .	. . . . . .	1,524	439,760	1,958,254	2,530,710	3,619,652
Fertilizers	1900	422	1,712	2,124,972	11,581	4,185,289	60,685,753	28,958,473	44,657,385
	1890	390	1,132	1,253,961	9,026	3,417,870	40,594,168	25,113,874	39,180,844
	1880	364	. . . .	. . . . . .	8,598	2,648,422	17,913,660	15,995,078	23,650,795
Files	1900	86	127	153,875	3,160	1,277,199	3,857,647	1,166,414	3,403,906
	1890	140	231	228,365	2,435	1,217,576	2,991,988	1,038,943	3,179,649
	1880	179	. . . .	. . . . . .	2,508	957,412	1,666,550	787,569	2,486,533
Firearms	1900	32	228	243,206	4,482	2,542,366	6,916,231	1,305,421	5,444,659
	1890	34	99	124,274	2,660	1,575,931	4,672,424	485,946	2,922,514
	1880	39	. . . .	. . . . . .	4,862	2,700,281	8,115,489	1,859,026	5,736,936
Fire extinguishers, chemical	1900	17	47	39,348	64	32,828	136,933	70,874	217,883
	1890	9	26	32,284	56	25,594	405,733	57,736	195,834
	1880	3	. . . .	. . . . . .	119	84,750	400,000	81,840	204,693
Fireworks	1900	46	136	145,570	1,638	506,990	1,086,133	627,761	1,785.271
	1890	22	39	47,805	518	165,298	507,266	188,938	592,542
	1880	39	. . . .	. . . . . .	735	216,069	579,750	840,877	1,391,132
Fish, canning and preserving	1900	348	618	585,160	13,410	4,229,638	19,514,215	13,232,001	22,253,749
	1890	110	182	120,253	5,020	1,128,143	3,186,975	4,710,709	6,972,268
	1880	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
Flags and banners	1900	36	62	63,764	509	148,933	666,033	547,165	1,038,052
	1890	29	43	46,436	321	96,189	376,130	195,587	455,849
	1880	11	. . . .	. . . . . .	68	27,375	54,300	48,200	119,600
Flavoring extracts	1900	352	594	654,225	1,254	478,975	3,319,716	3,294,380	6,314,552
	1890	148	262	233,071	507	208,715	1,361,800	1,430,120	2,614,514
	1880	58	. . . .	. . . . . .	374	129,343	404,615	796,049	1,195,637
Flax, dressed	1900	4	12	6,589	211	46,000	71,496	91,032	158,650
	1890	6	20	28,400	497	198,723	1,361,635	638,285	981,283
	1880	79	. . . .	. . . . . .	1,019	268,420	620,455	818,243	1,310,231
Flouring and grist mill products	1900	25,258	5,790	5,404,750	37,073	17,703,418	218,714,104	475,826,345	560,719,063
	1890	18,470	16,078	8,897,340	47,403	18,138,402	208,473,500	434,152,290	513,971,474
	1880	24,338	. . . .	. . . . . .	58,407	17,422,316	177,361,878	441,545,225	505,185,712
Food preparations	1900	644	1,472	1,422,182	8,154	3,051,718	20,998,102	23,675,165	38,457,651
	1890	302	674	593,922	3,478	1,222,913	6,715,535	8,129,925	14,105,485
	1880	109	. . . .	. . . . . .	1,333	318,253	1,293,905	1,604,660	2,493,224
Foundry and machine shop products	1900	9,324	27,451	31,663,481	350,327	182,232,009	665,058,245	286,357,107	644,990,999
	1890	6,500	16,651	19,242,145	231,331	129,282,263	883,257,473	171,363,925	413,197,116
	1880	4,984	. . . .	. . . . . .	145,650	66,093,920	155,021,734	104,041,972	215,442,011
Foundry supplies	1900	30	75	79,445	278	135,887	981,817	628,160	1,128,856
	1890	21	49	61,140	163	91,638	679,817	357,874	672,440
	1880	15	. . . .	. . . . . .	74	27,303	126,500	132,220	215,650
Fruits and vegetables; canning and preserving	1900	1,808	1,741	1,277,028	36,401	8,050,793	27,743,067	37,524,297	50,668,318
	1890	886	1,119	592,390	49,762	4,651,317	15,315,185	18,665,163	29,862,416
	1880	411	. . . .	. . . . . .	31,905	2,679,960	8,247,488	12,051,293	17,599,576
Fuel, artificial	1900	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
	1890	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
	1880	1	. . . .	. . . . . .	70	10,000	100,000	55,000	102,000
Fur goods	1900	994	1,211	1,042,392	8,588	4,273,192	13,373,867	15,113,356	27,735,264
	1890	484	1,128	1,272,043	6,947	3,477,148	11,115,840	11,742,508	20,526,988
	1880	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
Furnishing goods, men's	1900	470	2,135	2,160,142	30,216	9,680,077	20,163,222	23,404,699	43,902,162
	1890	586	1,433	1,511,323	20,778	6,078,026	12,299,011	15,280,572	29,870,946
	1880	161	. . . .	. . . . . .	11,174	2,644,155	3,724,664	6,503,164	11,506,857
Furniture, cabinet making, upholstering	1900	7,972	7,235	7,042,172	100,018	42,638,810	117,982,091	65,499,877	153,168,309
	1890	5,973	8,917	7,976,186	83,587	40,816,566	93,642,147	55,125,830	135,627,332
	1880	6,008	. . . .	. . . . . .	62,662	25,048,414	47,831,529	40,011,090	85,004,618
Furs, dressed	1900	92	46	49,124	835	478,190	798,030	519,699	1,400,455
	1890	26	37	48,618	400	238,890	266,921	203,199	651,296
	1880	192	. . . .	. . . . . .	4,134	1,389,284	3,598,887	5,338,242	8,238,712
Galvanizing	1900	28	52	45,522	535	229,406	1,775,770	1,677,584	2,470,702
	1890	27	85	111,233	671	361,878	1,301,973	1,940,712	2,957,143
	1880	21	. . . .	. . . . . .	518	244,799	671,450	1,103,186	1,884,695
Gas and lamp fixtures	1900	223	875	992,003	7,642	3,504,301	10,009,239	5,013,597	12,577,806
	1890	108	516	712,699	5,014	2,879,813	7,218,964	2,208,124	7,825,672
	1880	35	. . . .	. . . . . .	3,069	1,469,287	3,248,400	1,675,875	4,329,656
Gas and oil stoves	1900	35	191	231,436	2,471	1,138,442	3,766,065	2,501,568	4,579,709
	1890	24	108	122,047	923	506,726	1,199,528	840,126	2,137,944
	1880	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
Gas, illuminating and heating	1900	877	5,904	5,273,500	22,459	12,436,296	567,000,506	20,605,356	72,716,693
	1890	742	1,864	2,143,169	12,996	8,499,625	258,771,795	14,037,087	56,987,290
	1880	. . . .	. . . .	. . . . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Year.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Gas machines and meters	1900	114	257	$251,382	2,167	$1,185,959	$4,605,624	$1,943,769	$4,392,730
	1890	38	73	83,627	998	625,902	1,603,426	675,542	1,838,644
	1880	34	....	......	853	397,108	1,147,000	636,676	1,334,091
Glass	1900	355	2,268	2,792,376	52,818	27,084,710	61,428,903	16,731,009	56,539,712
	1890	294	1,095	1,232,561	44,892	20,885,961	40,966,850	12,140,985	41,051,004
	1880	211	....	......	24,177	9,144,100	19,844,699	8,028,621	21,154,571
Glass, cutting, staining and ornamenting	1900	417	475	487,270	4,931	2,403,591	4,019,534	3,540,097	8,776,006
	1890	279	474	541,860	3,320	1,954,560	2,504,089	2,188,287	6,090,378
	1880	170	....	......	1,586	706,768	945,180	1,156,866	2,535,009
Gloves and mittens	1900	394	659	547,320	14,345	4,182,518	9,089,909	9,483,130	16,926,156
	1890	324	482	438,664	8,187	2,670,344	5,977,820	5,021,144	10,103,821
	1880	300	....	......	7,697	1,655,695	3,379,648	4,351,469	7,379,605
Glucose	1900	8	147	280,284	3,288	1,755,179	41,011,345	15,773,233	21,693,656
	1890	7	35	72,320	1,724	902,086	5,991,023	5,029,131	7,156,686
	1880	7	....	......	1,192	605,802	2,255,000	3,044,450	4,551,212
Glue	1900	61	159	192,147	1,618	685,096	6,144,407	3,767,023	5,389,006
	1890	62	139	147,363	1,697	676,089	4,859,266	2,510,927	4,270,460
	1880	82	....	......	1,801	600,018	3,916,750	2,786,342	4,324,072
Gold and silver leaf and foil	1900	93	35	35,996	1,163	498,692	1,086,854	1,604,013	2,666.224
	1890	81	94	102,629	1,405	698,167	1,105,198	1,834,716	3,977,791
	1880	60	....	......	955	410,647	498,500	1,011,792	1,614,040
Gold and silver refining, not from ore	1900	57	76	83,484	219	141,400	1,944,124	10,932,361	11,811,537
	1890	38	83	145,422	883	625,608	4,763,397	30,005,096	32,035,520
	1880	28	....	......	304	178,696	817,100	9,128,811	9,548,188
Graphite and graphite refining	1900	11	16	20,750	137	64,376	411,128	216,560	429,173
	1890	3	3	1,434	18	9,008	38,614	26,380	54,605
	1880	4	....	......	89	35,225	113,000	144,100	210,000
Grease and tallow	1900	289	256	265,863	2,046	1,069,683	7,080,692	8,761,857	11,669,821
	1890	233	317	285,396	1,470	763,888	4,336,193	5,135,901	7,474,911
	1880	156	....	......	1,091	556,015	2,566,779	11,779,482	13,730,013
Grindstones	1900	25	60	57,805	1,167	407,153	903,348	263,811	1,088,909
	1890	9	8	5,204	124	51,776	78,750	34,742	122,240
	1880	14	....	......	231	57,040	125,261	85,366	184,555
Hairwork	1900	397	59	37,948	1,101	375,156	1,009,908	673,004	1,952,792
	1890	492	548	380,347	1,397	490,254	1,362,993	846,045	2,489,061
	1880	299	....	......	1,172	323,315	613,040	667,132	1,467,723
Hammocks	1900	13	21	16,100	339	101,626	308,254	242,950	480,114
	1890	6	6	3,755	80	14,604	65,525	26,535	60,254
	1880	5	....	......	82	17,576	22,300	61,830	110,352
Hand-knit goods	1900	86	22	13,362	304	75,870	205,488	124,009	352,226
	1890	28	38	26,138	186	35,851	78,468	88,280	205,775
	1880	39	....	......	1,814	137,720	152,700	239,040	446,354
Hand stamps	1900	268	137	118,960	1,052	490,036	1,203,910	522,659	1,937,628
	1890	234	363	306,558	705	344,089	998,873	432,687	1.583,872
	1880	46	....	......	163	82,895	103,150	103,648	318,618
Hardware	1900	381	1,844	2,054,704	26,463	11,422,758	39,311,745	14,605,244	35,846,656
	1890	350	1,176	1,255,419	18,495	8,656,067	26,271,840	10,186,442	26,726,463
	1880	492	....	......	16,801	6,846,913	15,363,551	10,097,577	22,653,693
Hardware, saddlery	1900	80	222	247,117	2,940	1,217,202	3,335,274	1,690,168	4,149,489
	1890	102	262	286,970	2,917	1,260,325	3,376,356	1,624,849	4,118,195
	1880	64	....	....	2,815	960,432	1,655,550	1,851,436	3,651,021
Hat and cap materials	1900	70	50	60,408	1,371	434,148	1,744,419	2,797,756	3,849,116
	1890	73	116	145,897	1,589	698,455	1,709,650	2,059,001	3,465,524
	1880	64	....	......	1,215	463,854	746,828	1,325,231	2,217,250
Hats and caps, not of wool	1900	816	1,369	1,618,791	31,425	14,144,552	25,095,798	24,421,052	49,205,667
	1890	705	1,262	1,460,830	25,931	12,650,917	13.724,002	16,160,802	37,311,599
	1880	489	....	......	17,240	6,635,522	5,455,468	9,341,352	21,303,107
Hay and straw bailing	1900	....	....	......	....	......	......	......	......
	1890	72	59	25,327	718	124,326	416,541	729,195	1,058,142
	1880	....	....	......	....	......	......	......	......
Hones and whetstones	1900	18	19	5,907	189	72,879	216,836	64,278	196,323
	1890	9	14	9,219	57	18,754	97,935	6,332	54,136
	1880	25	....	......	225	52,961	132,525	92,461	224,130
Hooks and eyes	1900	9	34	20,453	300	127,518	1,382,394	255,427	499,543
	1890	10	25	42,373	218	106,071	449,618	325,615	593.604
	1880	5	....	......	228	88,321	420,188	214,986	370,078
Horseshoes, factory products	1900	6	13	25,957	167	90,527	344,151	172,237	387,619
	1890	4	19	40,976	474	241,894	1,299,065	519,449	1,110,032
	1880	....	....	......	....	......	......	......	......
Hosiery and knit goods	1900	921	2,809	3,124,798	83,387	24,358,627	81,860,604	51,071,859	95,482.566
	1890	796	1,621	1,685,153	59,588	16,578,119	50,607,738	35,861,585	67,241.013
	1880	359	....	......	28,885	6,701,475	15,579,591	15,210,951	29,167,227
House-furnishing goods, not otherwise mentioned	1900	210	584	628,314	5,212	1,837,552	10,638,248	9,198,803	14,280,575
	1890	133	250	272,824	3,417	1,506,929	6,939,659	4,832,791	8,347,285
	1880	48	....	......	592	216,890	456,806	812.361	1,332,188
Ice, manufactured	1900	775	1,531	1,226,331	6,880	3,402,745	38.019,507	3,312,393	13,780,978
	1890	222	439	345,191	2,826	1,095,996	9,846,468	940,699	4,900,983
	1880	35	....	......	447	140,885	1,251,200	158,112	544,763
Ink	1900	104	401	478,316	787	412,140	3,821,514	2,109,142	4,372,707
	1890	73	263	336,962	761	420,228	2,655,219	1,664,785	3,504,979
	1880	63	....	......	480	230,234	1,251,050	864,765	1,629,413
Instruments, scientific	1900	265	398	408,314	2,786	1,433,715	4,491,627	1,385,292	4,896,631
	1890	233	393	414,596	1,978	1,191,598	2,996,021	698,352	3,271.616
	1880	171	....	......	1,099	588,751	1,342,196	444,425	1,639,094

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Iron and steel	1900	668	$9,211	$11,737,488	222,490	$120,820,276	$573,391,663	$522,398,932	$803,968,273
	1890	645	3,820	5,687,606	148,715	78,977,900	372,678,018	295,777,843	430,954,348
	1880	1,005	. . . .	. . . . . .	140,978	55,476,785	230,971,884	191,271,150	296,557,685
Iron and steel, bolts, nuts, washers, rivets	1900	72	420	571,073	7,660	2,991,857	10,799,692	8,071,071	13,978,382
	1890	82	386	467,748	6,955	3,004,454	10,789,821	6,746,304	12,373,031
	1880	100	. . . .	. . . . . .	5,064	1,981,300	4,933,019	6,097,011	10,073,330
Iron and steel doors and shutters	1900	13	20	19,452	117	85,683	261,958	115,718	319,629
	1890	7	7	7,625	46	30,764	42,550	29,792	88,515
	1880	6	. . . .	. . . . . .	223	103,269	79,375	296,600	495,060
Iron and steel forgings	1900	91	322	410,845	4,688	2,559,433	9,677,193	5,213,550	10,439,742
	1890	90	240	324,527	4,208	2,314,114	7,152,145	4,875,697	9,042,563
	1880	91	. . . .	. . . . . .	3,210	1,329,151	3,598,241	3,960,780	6,492,028
Iron and steel nails and spikes	1900	102	431	444,301	4,477	2,042,250	10,751,359	8,561,571	14,777,299
	1890	138	516	672,741	16,600	7,144,253	24,334,549	22,960,737	34,227,517
	1880	62	. . . .	. . . . . .	2,910	1,255,171	3,877,805	3,312,602	5,629,240
Iron and steel pipe, wrought	1900	19	193	266,319	5,536	2,495,898	18,343,977	15,523,858	21,292,043
	1890	22	371	447,747	11,693	5,397,715	22,622,367	25,988,798	37,906,801
	1880	35	. . . .	. . . . . .	5,210	1,788,258	6,129,565	9,480,049	13,292,162
Iron-work, ornamental	1900	672	1,867	2,034,417	20,646	11,111,226	33,062,409	31,140,636	53,508,179
	1890	724	1,514	1,715,756	17,158	10,235,701	21,968,172	18,620,510	37,745,294
	1880	220	. . . .	. . . . . .	1,934	844,614	1,400,197	1,699,465	3,410,086
Ivory and bone-work	1900	70	90	67,127	1,334	529,051	939,714	930,224	1,873,357
	1890	64	105	95,493	1,240	591,867	1,894,549	921,975	1,918,607
	1880	55	. . . .	. . . . . .	1,105	414,701	775,564	754,654	1,454,901
Japanning	1900	38	4	3,900	160	75,453	117,639	55,305	215,506
	1890	39	49	51,004	243	105,197	285,794	120,184	350,819
	1880	30	. . . .	. . . . . .	183	65,562	78,710	63,743	190,080
Jewelry	1900	908	1,817	1,852,449	20,676	10,746,375	28,120,939	22,356,067	46,501,181
	1890	783	1,881	2,232,066	13,880	8,038,327	22,246,508	16,110,219	34,761,458
	1880	739	. . . .	. . . . . .	12,697	6,441,688	11,431,164	10,324,990	22,201,621
Jewelry and instrument cases	1900	63	52	34,886	819	322,566	547,753	435,717	1,156,977
	1890	76	128	140,647	910	446,927	634.900	483,441	1,454,053
	1880	17	. . . .	. . . . . .	138	51,000	62,000	48,550	131,670
Jute and jute goods	1900	18	88	147,313	4,506	1,181,790	7,027,293	3,015.362	5,383,797
	1890	7	18	23,001	1,194	368,585	1,645,636	501,909	1,120,121
	1880	4	. . . .	. . . . . .	525	141,979	415,000	447,094	696,982
Kaolin and other earth grinding	1900	145	232	256,584	2,094	820,678	12,212,341	1,651,335	3,722,151
	1890	95	190	195,250	1,271	548,879	3,334,575	1,330,290	2,846,862
	1880	63	. . . .	. . . . . .	898	310,909	1,291,527	697,006	1,455,757
Kindling wood	1900	85	68	55,527	1,525	566,635	1,775,272	735,844	1,784.690
	1890	136	188	156,283	1,617	616,094	1,299.533	1,187,460	2,401,873
	1880	213	. . . .	. . . . . .	1,443	526,861	1,018,490	1,403.010	2,480,953
Labels and tags	1900	47	96	119,889	754	289,273	848,115	387.517	1,104,652
	1890	47	92	90,937	618	288.960	646,815	402,371	1,048,304
	1880	19	. . . .	. . . . . .	328	149,268	451,500	492,655	865,825
Lamps and reflectors	1900	156	499	568,516	4,725	2,076,980	6,375,474	3,497,236	8,341,374
	1890	93	220	284,313	2,066	1,035,960	2,550,214	1.542,092	4,039,359
	1880	74	. . . .	. . . . . .	1,730	742,423	1,873,625	1,852,906	3.357,829
Lapidary work	1900	60	43	50,967	498	498,715	3,087,390	4,655,765	5,786,281
	1890	29	37	40,844	92	58,642	100,635	124,852	315,604
	1880	55	. . . .	. . . . . .	252	142,075	176,875	226,277	544,089
Lard, refined	1900	19	54	79,675	499	237,930	1,335,759	7,496,845	8,630,901
	1890	17	130	187,940	888	460,102	3,898,910	12,654,360	15,474,848
	1880	26	. . . .	. . . . . .	1,181	546,258	2,513,066	21,948,826	23,195,702
Lasts	1900	65	97	108,250	1,131	649,654	1,484,966	526.670	1,879,742
	1890	52	78	85,989	696	485,743	906,820	331,225	1,239.065
	1880	62	. . . .	. . . . . .	537	308,975	477,692	221,905	765,296
Lead, bar, pipe, sheet	1900	34	151	201,619	605	321,598	3,949,330	6,279.497	7,477,824
	1890	28	143	169,133	637	383,188	4,892,525	6,882,157	8,351,754
	1880	32	. . . .	. . . . . .	571	316,363	2,466,375	4,363,209	5,600,671
Lead, smelting and refining	1900	39	425	754,913	8,319	5,088,684	72,148,933	144,195,163	175,466,304
	1890	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
	1880	. . . .	. . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .	. . . . . .
Leather board	1900	3	4	2,900	71	24,350	49,500	49,451	108,734
	1890	8	22	20,711	163	71,452	445,743	211,936	463,705
	1880	24	. . . .	. . . . . .	379	121,015	856,200	400,975	689,300
Leather goods	1900	313	635	559,740	6,253	2,256,280	5,467,294	6,162,148	11,717,401
	1890	156	341	360,472	2,834	1,166,135	3,126,104	3,112,892	5,827,802
	1880	60	. . . .	. . . . . .	1,051	466,193	570,650	1,110,873	2,047,243
Leather, tanned, curried and finished	1900	1,306	2,442	3,158,842	52,109	22,591,091	173,977,421	155,000,004	204,038,127
	1890	1,788	2,635	2,735,890	42,392	21,249,989	98,088,698	122,946,721	172,136,092
	1880	5,628	. . . .	. . . . . .	40,282	16,503,828	73,383,911	156,384.117	200,264,944
Lime and cement	1900	1,000	1,408	1,417,185	19,107	7,749,815	48,833,730	11,041,577	28,689,135
	1890	873	667	528,909	13,043	4,944,313	18,752,396	5,667,863	15,741,801
	1880	615	. . . .	. . . . . .	5 669	1,579,313	6,332,338	2,649,189	5,772,318
Linen goods	1900	18	117	142,941	3,283	1,036,839	5,688,999	2,550,517	4,868,159
	1890	3	9	13,070	574	167,134	908.589	268,907	547,273
	1880	5	. . . .	. . . . . .	484	124,046	406,800	381,875	602,451
Liquors, distilled	1900	967	661	889,606	3,722	1,733,218	32,551,604	15,147,784	96,798,443
	1890	440	581	568,825	4,762	2,246,064	31,006,176	14,909,173	104.197,869
	1880	844	. . . .	. . . . . .	6,502	2,663,967	24,247,595	27,744,245	41,063,663
Liquors, malt	1900	1,509	7,153	13,046,540	39,532	25,826,211	415,284,468	51,674,928	237,269,713
	1890	1,248	4,543	7,669,161	30,257	20.713,383	232,471,290	64,003.347	182 731 622
	1880	2,191	. . . .	. . . . . .	26,220	12,198,053	91,208.224	56,886,500	101,058,385

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Liquors, vinous	1900	359	344	$365,498	1,163	$446,055	$9,838,015	$3,689,330	$6,547,310
	1890	236	234	181,280	1,048	299,453	5,792,783	1,318,012	2,846,148
	1880	117	. . . .	. . . . . .	967	216,559	2,581,910	1,340,629	2,169,193
Lithographing and engraving	1900	263	1,497	1,968,388	12,994	6,882,168	22,676,142	7,886,045	22,240,679
	1890	219	934	1,291,844	9,656	5,855,330	15,490,127	6,265,464	17,988,157
	1880	167	. . . .	. . . . . .	4,322	2,307,302	4,501,825	2,755,264	6,912,338
Lock and gun smithing	1900	2,103	69	41,695	1,553	769,351	2,250,300	929,700	3,703,127
	1890	1,308	1,318	846,455	1,242	655,861	1,867,220	822,557	3,153,834
	1880	607	. . . .	. . . . .	887	368,967	705,815	398,642	1,317,810
Looking-glass and picture frames	1900	1,629	1,182	934,129	7,712	3,370,072	7,747,382	6,887,231	15,570,293
	1890	1,290	1,736	1,410,696	7,928	3,846,857	8,554,995	7,069,115	16,376,173
	1880	645	. . . .	. . . . . .	6,183	2,471,105	4,437,666	4,831,248	9,596,219
Lumber and timber products	1900	33,035	12,530	11,260,608	283,260	104,640,591	611,611,524	317,923,548	566,832,984
	1890	22,617	20,375	11,203,757	311,964	87,934,284	557,881,054	242,562,296	437,957,382
	1880	25,758	. . . .	. . . . . .	148,290	31,893,098	181,465,392	146,312,937	233,608,886
Lumber, planing-mill products, doors, sash, etc.	1900	4,204	5,682	5,249,632	73,627	32,685,210	119,271,631	99,927,707	168,343,003
	1890	3,670	6,965	6,748,224	79,923	42,221,856	120,271,440	104,926,834	183,681,552
	1880	2,491	. . . .	. . . . . .	37,187	14,431.654	38,070,593	45,268,462	73,424,681
Malt	1900	146	290	471,316	1,990	1,182,513	39,288,102	14,816,741	19,373,600
	1890	202	366	513,025	3,328	1,590,175	24,293,864	17,100,074	23,442,559
	1880	216	. . . .	. . . . . .	2,332	1,004,548	14,390,441	14,321,423	18,273.102
Mantels, slate, marble, marbleized	1900	36	72	69,571	449	291,050	811,995	487,965	1,153,540
	1890	90	184	207,742	1,520	953,119	1,854,759	1,254,667	3,127,662
	1880	46	. . . .	. . . . . .	725	313,009	750,300	476,431	1,030,660
Marble and stone work	1900	6,070	3,306	3,003,875	54,370	28,663,241	67,509,533	30,443,297	85,101,591
	1890	3,373	4,261	4,020,898	31,728	21,342,623	37,115,193	23,868,904	62.595,762
	1880	2,846	. . . .	. . . . . .	21,471	10,238,885	16,498,221	12,743,345	31,415,150
Masonry, brick and stone	1900	8,333	2,386	2,352,394	93,568	53,152,258	48,070,239	87,280,964	203,593,634
	1890	7,715	8,411	8,216,204	110,618	69,311,083	54,969,408	96,207,162	204,165,642
	1880	1,591	. . . .	. . . . . .	16,020	6,880,866	3,990,706	10,123,478	20,586,553
Matches	1900	22	66	87,115	2,047	612,715	3,893,000	3,420,740	6,005,937
	1890	27	59	70,655	1,696	473 556	1,941,092	935,008	2,193,638
	1880	37	. . . .	. . . . . .	2,219	535,911	2,114,850	3,298,562	4,668.446
Mats and matting	1900	9	42	31,060	1,197	237,282	994,155	516.137	1,165,330
	1890	24	40	39,607	383	172,874	392,639	301,591	608,625
	1880	12	. . . .	. . . . . .	285	125,129	212,000	233,707	439,370
Mattresses and spring beds	1900	797	869	778,817	7,959	3,213,268	8,298,772	10,444,009	18,463,704
	1890	696	1,019	896,344	6,318	2,763,953	6,662,929	8,727,380	15,683,032
	1880	357	. . . .	. . . . . .	2,394	868,325	1,749,750	3,116,471	5,288,234
Millinery and lace goods	1900	591	1,592	1,392,904	16,871	5,817,855	10,764,813	15,654,295	29,469,406
	1890	278	709	926,408	11,118	4,526,021	6,630,210	8,588,342	18,047,067
	1880	247	. . . .	. . . . . .	6,555	1,661,044	2,678,880	6,142,091	9,577,840
Millinery, custom work	1900	16,151	3,723	1,508,987	33,298	9,570,536	27,740,386	36,455,043	70,363,752
	1890	5,999	6,904	3,703,738	17,072	5,241,401	16,309,220	18,756,777	36,983,082
	1880	. . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Millstones	1900	3	7	7,816	37	20.957	49,238	30,995	75,922
	1890	4	4	5,100	24	12,764	49,450	18,249	47,152
	1880	16	. . . .	. . . . . .	174	96,534	178,900	172,725	355,519
Mineral and soda water	1900	2,816	1,464	1,203,407	8,985	4,169,113	20,518,708	8,801,467	23,874,429
	1890	1,377	1,798	1,426,705	5,919	2,780,163	10,781,817	4,562,803	14,353,745
	1880	512	. . . .	. . . . . .	2,726	1,065,633	2,569,561	2,117,764	4,741,709
Mirrors	1900	103	269	277,419	2,555	1,231,689	3,184,426	4,995,671	8,004,301
	1890	45	138	190,828	1,404	842,407	1,695,772	3,274,131	6,000,533
	1880	7	. . . .	. . . . . .	77	42,900	155,800	212,500	304,000
Mixed textiles	1900	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1890	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1880	470	. . . .	. . . . . .	43,373	13,316,753	37,996,057	37,227,741	66,221,703
Models and patterns	1900	532	118	113,413	2,608	1,565,728	2,250,484	825,111	3,836,518
	1890	456	525	490,112	1,627	1,005,145	1,594,804	510,636	2,734,395
	1880	233	. . . .	. . . . . .	815	421,857	447,351	223,906	1,020,650
Mucilage and paste	1900	117	170	164,328	480	205,082	1,265,426	1,657,342	2,629,299
	1890	55	95	79,629	309	119,782	748,826	755,034	1,276,611
	1880	4	. . . .	. . . . . .	9	3,090	3,100	8,770	16,700
Musical instruments and materials not specified	1900	229	158	141,745	2,405	1,232,039	3,896,101	1,205,337	3,394,734
	1890	293	326	257,067	1,056	605,110	1,329,329	510,664	1,888,613
	1880	84	. . . .	. . . . . .	573	293,062	654,850	385,776	853,746
Musical instruments, organs and materials	1900	139	274	299,435	3,435	1,720,727	5,011,987	2,220,165	5,691,504
	1890	145	381	422,486	4,608	2,674,191	9,890,288	3,454,720	9,213,188
	1880	171	. . . .	. . . . . .	4,202	2,142,539	3,922,338	2,692,332	6,136,472
Musical instruments, pianos and materials	1900	261	1,244	1,715,191	17,869	9.818,996	38,790,494	15,147,520	35,324,090
	1890	236	625	978,382	12,432	8,369,347	18,430,872	10,470,779	25,766,368
	1880	174	. . . .	. . . . . .	6,575	4,663,193	9,869,577	5,283,119	12,264,521
Needles and pins	1900	43	101	126,754	2,353	939,846	3,235,158	972,570	2,738.439
	1890	45	71	78,518	1,609	649,484	1,820,089	450,442	1,515,865
	1880	40	. . . .	. . . . . .	1,077	392,214	1,144,550	591,013	1,378,023
Nets and seines	1900	19	41	63,545	748	222,146	1,160,782	865,908	1,476,022
	1890	22	32	27,864	618	190,121	1,135,764	634,634	1,002,196
	1880	13	. . . .	. . . . . .	210	54,112	140,650	180,215	291,765

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Oakum	1900	7	10	$16,922	$171	$51,343	$416,199	$283,862	$440,237
	1890	7	9	10,300	142	46,816	275,675	231,733	363,400
	1880	....	....	....	....	....	....	....	....
Oil, castor	1900	3	12	17,320	49	29,068	539,221	293,408	395,400
	1890	7	24	25,599	77	44,532	621,798	431,231	573,363
	1880	8	....	....	108	44,714	474,000	384,890	653,900
Oil, cottonseed and cake	1900	369	1,569	1,579,252	11,007	3,143,459	34,451,461	45,165,823	58,726,632
	1890	119	395	414,047	5,906	1,493,780	12,808,996	14,363,126	19,335,947
	1880	45	....	....	3,319	880,836	3,862,300	5,091,251	7,690,921
Oil, essential	1900	70	42	25,523	199	69,100	612,657	596,112	850,093
	1890	67	23	8,568	197	28,924	102,223	129,735	255,847
	1880	124	....	....	278	24,030	67,755	125,167	248,858
Oil, lard	1900	7	24	24,426	78	42,205	369,773	971,647	1,221,841
	1890	7	26	29,024	94	53,208	481,526	920,650	1,181,613
	1880	28	....	....	432	161,672	1,127,500	4,184,450	4,721,066
Oil, linseed	1900	48	285	446,247	1,328	693,311	15,460,512	24,395,775	27,184,331
	1890	62	187	308,718	1,886	977,344	14,003,358	19,374,543	23,534,306
	1880	81	....	....	1,416	681,677	5,872,750	12,874,294	15,393,812
Oil, not elsewhere specified	1900	194	788	967,015	1,386	700,050	9,549,984	9,848,409	17,183,799
	1890	129	380	463,526	758	467,362	4,652,653	5,403,522	9,256,250
	1880	73	....	....	513	245,649	1,931,775	2,754,713	3,694,587
Oil, resin	1900	....	....	....	....	....	....	....	....
	1890	8	27	29,056	90	53,596	284,110	535,320	738,680
	1880	3	....	....	23	14,590	82,523	189,622	238,471
Oilcloth, enameled	1900	9	48	100,584	512	300,878	1,702,904	2,696,412	3,595,515
	1890	9	26	29,702	341	182,759	772,820	983,518	1,603,265
	1880	4	....	....	258	116,627	315,000	864,200	1,062,000
Oilcloth, floor	1900	18	105	193,939	2,718	1,327,235	7,176,198	4,853,260	7,807,105
	1890	19	62	92,203	1,521	745,766	3,704,436	2,380,295	3,877,822
	1880	25	....	....	1,735	733,235	3,429,550	3,118,708	4,752,587
Oleomargarine	1900	24	394	412,012	1,084	534,444	3,023,646	7,639,501	12,499,812
	1890	12	64	91,752	264	154,138	634,532	2,175,264	2,988,525
	1880	15	....	....	599	212,952	1,680,300	5,486,141	6,892,939
Optical goods	1900	350	568	447,743	4,341	1,935,219	5,567,809	3,283,430	7,790,970
	1890	190	337	290,078	2,507	1,010,374	2,608,176	1,324,305	3,505,973
	1880	62	....	....	1,088	450,897	643,825	417,472	1,182,142
Ordnance and ordnance stores	1900	4	81	96,001	989	615,280	3,468,713	802,706	2,239,797
	1890	4	21	34,888	1,428	1,064,418	7,639,991	743,348	2,424,662
	1880	....	....	....	....	....	....	....	....
Oysters, canning and preserving	1900	39	119	112,879	2,779	630,016	1,240,696	2,608,757	3,670,134
	1890	16	61	69,891	3,453	642,610	1,106,962	2,088,867	3,260,766
	1880	....	....	....	....	....	....	....	....
Painting and paper hanging	1900	16,939	2,204	1,478,024	59,191	34,822,819	27,217,086	26,304,784	88,396,852
	1890	10,043	10,945	8,935,219	45,336	28,787,331	23,135,781	23,110,359	74,067,998
	1880	3,968	....	....	17,711	7,920,866	5,645,950	8,762,780	22,457,560
Paints	1900	419	2,512	3,077,318	8,151	3,929,787	42,501,782	33,799,386	50,874,995
	1890	382	1,693	2,036,869	7,044	3,568,757	34,009,203	24,930,532	40,438,171
	1880	244	....	....	4,483	2,132,255	13,555,292	17,062,552	23,390,767
Paper and wood pulp	1900	763	2,935	4,500,911	49,646	20,746,426	167,507,713	70,530,236	127,326,162
	1890	649	1,348	1,770,657	31,050	13,204,828	89,829,548	44,228,480	78,937,184
	1880	742	....	....	25,631	8,970,133	48,139,652	34,862,132	57,366,860
Paper goods, not elsewhere specified	1900	190	720	922,689	6,117	2,242,702	11,370,585	9,819,820	16,785,269
	1890	66	128	153,828	1,519	611,353	2,922,449	2,627,454	4,179,235
	1880	....	....	....	....	....	....	....	....
Paper hangings	1900	51	512	816,852	4,172	2,074,138	8,889,794	6,072,809	10,663,209
	1890	27	230	302,634	2,584	1,172,154	5,709,909	3,572,027	7,431,726
	1880	25	....	....	2,487	874,921	3,560,500	3,629,222	6,267,303
Paper patterns	1900	16	92	72,048	836	262,559	256,075	124,854	563,653
	1890	27	39	45,212	409	108,526	156,106	85,269	377,456
	1880	4	....	....	97	40,538	105,100	44,000	512,550
Patent medicines and compounds	1900	2,026	5,419	5,330,121	11,809	4,407,988	37,209,793	18,185,513	59,611,335
	1890	1,127	2,332	2,138,819	7,058	2,955,383	18,596,823	11,030,916	32,620,182
	1880	563	....	....	4,025	1,651,596	10,620,880	6,704,729	14,682,494
Paving and paving materials	1900	1,729	1,520	1,493,757	34,090	14,570,408	37,888,412	20,152,477	46,447,719
	1890	704	1,010	1,025,672	21,720	9,425,298	12,648,093	13,891,005	30,644,072
	1880	46	....	....	757	244,339	745,750	576,301	1,024,243
Pencils, lead	1900	7	81	111,890	2,162	638,281	2,227,406	1,030,917	2,222,276
	1890	5	64	130,300	1,388	450,450	3,100,836	796,378	1,687,560
	1880	4	....	....	399	102,233	341,597	97,344	279,427
Pens, fountain and stylographic	1900	23	84	80,808	318	141,012	590,629	351,932	906,454
	1890	15	24	28,902	152	73,897	142,265	123,214	351,775
	1880	....	....	....	....	....	....	....	....
Pens, gold	1900	22	62	67,522	378	229,679	496,246	312,537	799,078
	1890	18	62	75,124	301	185,545	473,964	235,628	718,070
	1880	16	....	....	264	172,207	370,150	190,906	533,061
Pens, steel	1900	3	13	21,416	473	138,433	357,460	52,466	294,340
	1890	3	15	20,143	496	132,032	399,182	56,630	268,259
	1880	3	....	....	280	88,500	182,500	38,950	164,000
Perfumery and cosmetics	1900	266	808	757,695	1,768	569,286	3,499,168	3,136,853	7,095,713
	1890	157	359	376,159	1,396	501,520	2,238,901	2,128,420	4,630,141
	1880	67	....	....	741	238,259	813,827	1,201,409	2,203,004
Petroleum, refining	1900	67	1,201	1,811,400	12,199	6,717,087	95,327,892	102,859,341	123,929,384
	1890	74	1,068	1,117,011	11,403	5,872,467	77,416,296	67,918,723	85,001,198
	1880	....	....	....	....	....	....	....	....

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Year.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Phonographs and graphophones	1900	11	$144	$179,145	$1,267	$608,490	$3,348,282	$827,529	$2,246,274
	1890	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Photographic apparatus	1900	48	165	129,618	1,961	779,890	1,849,724	595,925	2,026,063
	1890	25	43	46,184	506	262,755	362,834	164,620	624,342
	1880	10	. . . .	. . . . . .	104	41,314	90,800	40,658	104,305
Photographic materials	1900	105	304	323,676	1,483	662,958	3,668,026	2,782,285	5,773,325
	1890	45	116	118,018	783	420,248	1,172,640	1,107,269	2,121,387
	1880	5	. . . .	. . . . . .	63	25,310	63,000	89,900	142,000
Photography	1900	7,553	1,063	664,083	8,911	4,013,018	13,193,589	6,841,853	23,238,719
	1890	3,105	3,465	2,933,228	6,967	3,472,643	7,804,532	3,892,196	15,488,324
	1880	1,287	. . . .	. . . . . .	3,977	1,751,118	3,131,895	1,671,455	5,935,311
Photo-lithographing and photo-engraving	1900	204	405	450,720	2,698	1,756,578	1,999,921	728,743	4,226,106
	1890	89	207	228,279	1,145	760,619	1,134,873	541,395	2,071,580
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Pickles, preserves and sauces	1900	474	1,845	1,652,051	6,812	2,161,962	10,656,854	12,422,432	21,507,046
	1890	316	675	608,427	3,577	1,158,892	4,913,459	5,328,541	9,790,855
	1880	109	. . . .	. . . . . .	930	259,454	841,023	1,472,639	2,407,342
Pipes, tobacco	1900	98	120	108,890	1,585	737,647	1,111,144	1,106,299	2,471,908
	1890	69	139	159,181	1,206	571,815	1,432,753	626,668	1,881,262
	1880	37	. . . .	. . . . . .	645	226,306	233,800	209,518	628,688
Plaited and Britannica ware	1900	66	477	702,635	6,392	3,088,224	16,486,471	5,875,312	12,608,770
	1890	68	302	420,045	6,617	3,355,260	13,150,990	4,647,890	11,502,966
	1880	55	. . . .	. . . . . .	4,676	2,453,361	5,862,025	4,100,116	8,596,181
Plumbers' supplies	1900	174	917	987,282	8,024	3,930,594	13,598,528	7,289,867	14,771,185
	1890	122	538	646,629	4,947	2,657,585	9,678,107	5,853,709	11,960,464
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Plumbing, gas and steam fitting	1900	11,876	3,730	2,593,594	53,916	31,873,866	47,111,264	65,334,689	131,852,567
	1890	5,327	7,056	6,847,297	35,457	21,915,314	29,335,247	37,735,671	80,905,925
	1880	2,161	. . . .	. . . . . .	9,684	4,770,389	5,950,512	9,095,308	18,133,250
Pocketbooks	1900	68	124	146,219	1,653	588,595	991,876	1,278,226	2,495,188
	1890	62	140	170,081	1,208	491,911	1,121,834	968,948	2,165,462
	1880	53	. . . .	. . . . . .	1,413	484,947	598,350	930,033	1,769,036
Pottery, terre cotta, fire-clay products	1900	1,000	2,777	3,011,512	43,714	17,691,737	65,951,885	11,915,236	44,263,386
	1890	707	1,316	1,269,111	18,980	8,869,032	26,127,104	5,618,401	22,057,090
	1880	752	. . . .	. . . . . .	10,221	3,600,727	7,366,323	2,909,063	8,977,333
Printing and publishing	1900	22,312	37,799	36,090,719	162,992	84,249,954	292,517,072	86,856,290	347,055,050
	1890	16,566	28,391	26,272,756	136,836	78,810,319	195,387,445	68,858,915	275,452,515
	1880	3,468	. . . .	. . . . . .	58,506	30,541,657	63,003,704	32,660,395	90,970,341
Printing materials	1900	70	64	64,063	560	232,799	905,603	406,357	1,068,432
	1890	64	151	148,010	715	338,096	1,370,487	567,638	1,459,434
	1880	27	. . . .	. . . . . .	191	98,878	199,900	190,353	421,316
Pulp, from fiber other than wood	1900	3	6	7,200	121	28,462	479,158	42,204	103,204
	1890	7	16	24,350	152	68,906	583,837	126,902	524,243
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Pulp goods	1900	22	75	91,685	691	283,835	2,316,985	646,639	1,267,013
	1890	9	24	27,550	252	111,484	418,045	122,851	352,582
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Pumps, not steam	1900	130	95	83,677	632	247,193	1,260,710	637,768	1,341,713
	1890	256	386	317,571	1,754	827,574	3,540,097	1,681,275	4,103,410
	1880	411	. . . .	. . . . . .	1,731	652,749	2,383,482	2,038,634	3,644,631
Packing hose	1900	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1890	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1880	1	. . . .	. . . . . .	2	1,200	500	1,350	5,512
Refrigerators	1900	95	237	239,953	3,329	1,287,488	4,782,110	2,476,518	5,317,886
	1890	82	195	218,933	2,178	1,033,832	3,367,329	2,377,958	4,513,616
	1880	71	. . . .	. . . . . .	1,053	423,680	727,220	881,842	1,739,731
Regalia, banners and emblems	1900	120	248	196,982	1,586	476,580	1,795,858	1,608,415	3,077,945
	1890	137	299	306,869	2,080	737,853	1,841,193	1,246,906	3,203,890
	1880	47	. . . .	. . . . . .	589	174,097	452,590	429,227	815,638
Registers, car fare	1900	5	14	15,354	52	25,775	104,408	17,403	80,865
	1890	7	10	9,926	91	54,148	74,725	32,618	141.320
	1880	1	. . . .	. . . . . .	7	4,876	300,000	870	6,600
Registers, cash	1900	13	313	313,405	2,015	1,223,966	5,137,965	903,834	5,594,500
	1890	5	45	37,858	697	396,282	292,150	222,576	1,281,500
	1880	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
Rice, cleaning and polishing	1900	80	169	182,033	651	265,585	2,601,352	7,575,522	8,723,726
	1890	32	96	96,160	647	223,433	2,073,884	5,601,206	6,693,196
	1880	22	. . . .	. . . . . .	516	110,467	562,200	2,666,497	3,133.324
Roofing and roofing materials	1900	2,162	1,198	1,051,983	15,362	6,996,810	17,594,162	14,624,759	29,916,592
	1890	2,140	2,396	2,088,512	10,937	6,469,514	13,303,597	14,712,379	29,412,813
	1880	493	. . . .	. . . . . .	3,082	1,411,133	2,329,277	3,382,354	6,227,284
Rubber and elastic goods	1900	262	1,825	2,215,597	20,405	8,082,738	39,304,853	33,485,694	52,627,030
	1890	139	619	852,290	9,183	3,663,976	13,703,787	11,113,528	18,708,917
	1880	90	. . . .	. . . . . .	6,268	2,295,972	6,057,987	9,249,967	13,751,724
Rubber, vulcanized	1900	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1890	. . . .	. . . .	. . . . . .	. . . . .	. . . .	. . . .	. . . .	. . . .
	1880	3	. . . .	. . . . . .	495	154,700	226,200	391,200	767,200
Rules, ivory and wood	1900	11	14	11,986	213	66,732	202,724	72,657	207,757
	1890	16	27	22,194	136	51,933	172,918	34,325	154,173
	1880	6	. . . .	. . . . . .	56	19,974	54,200	16,075	66,200
Saddlery and harness	1900	12,934	1,976	1,587,651	24,123	10,725,647	43.354,136	33,127,926	62.630,902
	1890	7,931	7,654	5,121,927	22,672	10,908.918	35,346,620	24,674,225	52,970,801
	1880	7,999	. . . .	. . . . . .	21.446	7,997,752	16,508,019	19,968,716	38,081,643

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Safes and vaults	1900	35	272	$283,111	$2,033	$1,017,237	$5,479,879	$1,689,148	$3,927,867
	1890	39	315	265,210	3,816	2,129,615	4,603,118	2,635,313	6,641,844
	1880	40	....	......	2,206	1,096,504	2,201,600	1,431,083	3,352,396
Salt	1900	159	406	499,748	4,774	1,911,140	27,123,364	3,335,922	7,966,897
	1890	200	200	189,049	4,255	1,593,442	13,437,749	1,826,770	5,484,618
	1880	276	....	......	4,493	1,305,020	8,548,640	2,354,742	5,191,222
Sand and emery paper	1900	9	63	97,846	274	144,183	1,732,307	681,240	1,175,895
	1890	9	47	52,263	206	104,226	705,957	781,505	1,249,647
	1880	6	....	......	82	30,970	121,500	148,477	262,374
Saws	1900	96	312	329,402	3,215	1,692,757	8,508,487	2,600,217	6,443,748
	1890	95	267	276,168	2,676	1,583,526	6,313,373	2,346,401	5,572,992
	1880	89	....	......	2,566	1,226,370	3,281,135	1,744,083	3,943,105
Scales and balances	1900	86	305	297,166	2,775	1,436,839	6,307,576	1,533,379	5,239,788
	1890	76	150	145,078	1,350	692,497	1,658,655	867,955	2,322,744
	1880	64	....	......	1,554	783.019	3,814,981	654,711	3,252,460
Screws	1900	33	247	294,876	3,527	1,423,838	7,931,457	1,720,455	4,658,467
	1890	27	149	146,232	2,615	1,014,176	7,244,580	1,232,377	3,509,986
	1880	20	....	......	1,585	456,542	4,265,000	935,800	2,184,532
Sewing-machine cases	1900	7	58	66,497	2,653	1,065,180	1,333,341	1,533,880	2,815,142
	1890	7	20	34,122	1,822	852,603	1,430,403	990,439	2,249,555
	1880	18	....	......	1,822	683,338	741,300	1,239,400	2,064,837
Sewing machine repairing	1900	396	29	18,067	310	154,036	331,433	220,537	710,123
	1890	166	142	89,209	193	111,857	192,593	86,816	385,941
	1880	....	....	......	......	......	......	......	......
Sewing machines	1900	58	624	842,468	10,635	6,213,938	18,739,459	7,809,796	18,314,419
	1890	59	284	420,231	8,837	4,750,324	16,043,136	3,502,173	12,823,147
	1880	106	....	......	9,553	4,636,099	12,501,830	4,829,106	13,863,188
Shipbuilding	1900	1,116	1,407	2,008,537	46,781	24,839,163	77,362,701	33,486,772	74,578,158
	1890	1,010	1,123	1,194,870	24,811	14,833,977	53,393,074	16,925,109	40,342,115
	1880	2,188	....	......	21,345	12,713,813	20,979,874	19,736,358	36,800,327
Shirts	1900	986	2,041	1,734,814	38,492	11,425,101	20,312,412	23,662,317	49,022,845
	1890	869	1,543	1,511,108	31,207	9,193,495	14,273,611	15,704,353	33,638,593
	1880	549	....	......	25,687	5,403,696	6,841,778	11,306,444	20,130,031
Shoddy	1900	105	139	166,704	1,926	748,948	5,272,929	4,875,192	6,730,974
	1890	94	144	149,483	2,155	707,099	3,754,063	6,003,035	7,887,000
	1880	73	....	......	1,282	400,326	1,165,100	3,366,650	4,989,615
Show cases	1900	102	106	88,155	1,363	708,211	1,152,898	1,057,666	2,467,901
	1890	99	169	155,048	1,331	718,102	1,208,022	1,077,345	2,569,557
	1880	93	....	......	692	329,230	341,970	519,585	1,172,172
Silk and silk goods	1900	483	2,657	3,134,352	65,416	20,982,194	81,082,201	62,406,665	107,256,258
	1890	472	1,531	1,917,877	49,382	17,762,441	51,007,537	51,004,425	87,298,454
	1880	382	....	......	31,337	9,146,705	19,125,300	22,467,701	41,033,045
Silversmithing	1900	44	105	118,047	1,437	803,662	1,999,921	1,229,158	2,936,462
	1890	24	40	59,874	274	193,778	410,773	204,237	621,567
	1880	38	....	......	131	76,640	257,198	102,058	263,931
Silverware	1900	59	547	636,342	4,376	2,639,480	12,142,008	4,554,487	10,569,121
	1890	30	161	223,456	2,145	1,394,973	5,317,641	2,129,344	5,813,737
	1880	39	....	......	1,029	675,943	1,640,900	1,028,502	2,253,630
Slaughtering, meat packing, retail butchering	1900	1,134	10,290	10,178,773	69,441	33,923,253	190,706,927	696,860,891	790,252,586
	1890	1,367	4,240	4,735,047	44,812	24,668,202	118,016,066	482,897,381	564,667,035
	1880	872	....	......	27,297	10,508,530	49,419,213	267,738,902	303,562.413
Smelting and refining, not from ore	1900	61	203	229,244	983	532,068	5,200,523	5,899,935	7,784,695
	1890	50	119	171,053	1,646	951,300	9,425,912	25,285,191	28,188,826
	1880	4	....	......	311	158,300	162,100	8,171,900	8,411,100
Soap and candles	1900	558	2,738	2,777,071	9,487	3,754,767	38,068,334	33,143,230	53,231,017
	1890	578	1,484	1,534,794	7,821	3,416,854	24,821,069	28,687,412	43,600,285
	1880	629	....	......	5,289	2,219,513	14,541,294	19,907,444	26,552,627
Soda water apparatus	1900	30	227	243,710	863	549,939	4,202,452	997,436	3,015,493
	1890	12	154	181,041	839	547,080	3,354,928	1,016,202	2,711,879
	1880	8	....	......	332	169,235	413,000	565,538	1,075,569
Sporting goods	1900	144	168	167,509	2,230	810,943	2,018,737	1,802,903	3,633,396
	1890	136	191	176,059	2,008	705,911	1,693,776	1,119,806	2,709,449
	1880	86	....	......	1,401	411,854	1,444,750	692,616	1,556,258
Springs, steel, car and carriage	1900	48	166	275,205	2,102	1,061,006	4,684,278	3,024,656	5,690,499
	1890	57	158	211,828	1,734	962,942	3,459,422	2,219,408	4,331,571
	1880	59	....	......	1,530	699,412	1,769,293	2,346,818	3,654,862
Stamped ware	1900	139	590	667,825	10,002	3,730,241	13,954,176	7,333,028	14,546,191
	1890	104	346	424,798	7,281	2,834,809	9,718,585	5,505,632	11,277,508
	1880	27	....	......	2,730	972,544	2,325,940	2,422,849	3,997,926
Starch	1900	124	406	451,334	2,655	1,099,696	11,671,567	5,806,422	9,232,984
	1890	80	218	229,909	2,903	959,108	4,929,155	5,153,677	8,934,517
	1880	139	....	......	3,119	919,197	5,328,256	4,911,060	7,477,742
Stationery, not elsewhere specified	1900	113	450	411,792	3,032	958,471	4,494,507	2,128,445	5,065,869
	1890	206	564	643,629	4,315	1,684,868	5,438,934	5,328,252	9,456,467
	1880	159	....	......	3,117	1,159,893	3,286,325	3,501,426	5,898,322
Steam fittings and heating apparatus	1900	227	1,215	1,477,115	9,252	4,982,857	18,233,173	10,219,506	22,084,860
	1890	217	1,134	1,390,062	10,645	6,204,333	17,017,364	10,628,314	23,147,434
	1880	95	....	......	2,474	1,305,739	3,075,751	2,857,000	5,127,842
Steam packing	1900	97	290	325,877	1,147	525,332	2,691,304	1,546,398	3,493,710
	1890	34	103	77,192	315	151,982	538,564	357,819	1,003,372
	1880	....	....	......	......	......	......	......	......
Stencils and brands	1900	92	34	21,974	418	206,231	532,528	140,711	673,784
	1890	106	142	135,895	357	209,482	445,165	167,590	732,611
	1880	104	....	......	305	139,639	224,525	144,554	472,514

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Stereotyping and electrotyping	1900	140	330	$311,980	2,408	$1,458,977	$2,389,215	$766,603	$3,772,025
	1890	81	186	245,106	1,289	823,885	1,332,129	500,744	2,183,909
	1880	45	....	....	642	312,208	536,000	200,491	724,689
Straw goods, not elsewhere specified	1900	4	3	1,800	54	14,381	25,070	12,933	36,985
	1890	6	9	15,340	424	105,048	106,750	134,945	329,987
	1880	77	....	....	10,948	2,556,197	3,333,560	5,455,559	9,345,759
Sugar and molasses, beet	1900	30	350	356,675	1,970	1,092,207	20,141,719	4,803,796	7,323,857
	1890	....	....	....	....	....	....	....	....
	1880	4	....	....	350	62,271	365,000	186,128	282,752
Sugar and molasses, refining	1900	832	1,881	1,696,824	14,262	6,945,811	184,245,519	222,503,741	240,969,905
	1890	393	486	429,621	7,043	2,385,654	24,013.008	107,758,811	123,118,259
	1880	49	....	....	....	2,875,032	27,432,500	144,698,499	155,484,915
Surgical appliances	1900	219	359	356,216	1,539	620,801	2,487,494	1,291,580	3.932,358
	1890	155	300	248,514	612	300,804	856,396	524,488	1,650,033
	1880	71	....	....	477	265,372	843,142	286,720	906,303
Taxidermy	1900	147	9	5,998	180	91,140	366,077	177,038	513 112
	1890	63	65	55,875	90	46,362	293,112	37,727	231,773
	1880	16	....	....	150	22,000	25,750	21,850	82,500
Teasles	1900	....	....	....	....	....	....	....	....
	1890	5	3	1,040	69	20,544	61,400	50,362	84,700
	1880	....	....	....	....	....	....	....	....
Thread, linen	1900	Included in linen goods.			....	....	....	....	....
	1890	....	....	....	....	....	....	....	....
	1880	1	....	....	930	260,000	500,000	750,000	1,200,000
Tin and terne plate	1900	57	333	291,323	3,671	1,889,917	6,650,047	26,728,150	31,892,011
	1890	....	....	....	....	....	....	....	....
	1880	....	....	....	....	....	....	....	....
Tin foil	1900	15	45	59,041	582	227,774	2,094,327	1,074,192	1,593,169
	1890	....	....	....	....	....	....	....	....
	1880	4	....	....	186	100,673	686,000	198,942	416,849
Tin and copper smithing, sheet iron working	1900	12,466	3,115	2,596,695	45,575	22,155,039	55,703,509	50,329,282	100,310,720
	1890	7,002	7,065	5,426,110	31,377	15,610,265	38,434,900	31.217,522	66,653,746
	1880	7,693	....	....	27,116	11,243,276	23,167,392	26,460,228	50,183,811
Tobacco—chewing, smoking, snuff	1900	437	3,368	3,884,071	29,161	7,109,821	43,856,570	35,038,287	103,754,362
	1890	395	1,477	1,620,913	29,790	6,947,158	30,841,316	29,192,249	65,843,587
	1880	477	....	....	32,756	6,419,024	17,207,401	34,397,072	52,793,056
Tobacco—cigars and cigarettes	1900	14,539	4,470	4,712,786	103,462	40,925,596	67,706,493	57,946,020	160,223,152
	1890	10.956	11,156	8,292,929	87,000	36,475.060	59,517,827	50,298,960	129,693,275
	1880	7,145	....	....	53,297	18,464,562	21,698,549	29,577,833	63,979,575
Tobacco-stemming and rehandling	1900	276	424	354,677	9,654	1,817,067	12,526,808	14,198,349	19,099,032
	1890	292	519	327,429	5,985	1,128,517	5,735,610	12,813,108	16,209,761
	1880	52	....	....	1,534	170,871	1,089,342	1,409,502	1,897,535
Tools, not elsewhere specified	1900	448	665	678,674	7,615	3,781,763	13,690,047	4,657,200	13,360,920
	1890	462	685	662,786	6,410	3,482,052	11,376.622	3,517,269	10,528,025
	1880	145	....	....	3,151	1,489,531	4,384,109	1,532,556	4,236,568
Toys and games	1900	170	206	185,734	3,330	1,123,593	3,289,445	1,668,199	4,024,999
	1890	139	292	271,421	3,148	1,075,429	2,781,185	1,453,738	3,749,755
	1880	106	....	....	2,196	512,786	915,575	595,833	1,562,513
Trunks and valises	1900	391	714	694,349	7,084	2,834,892	7,046,649	6,045,387	12,693,225
	1890	395	753	722,999	6,032	2,790,750	6,900,756	4,703,982	10,821,621
	1880	265	....	....	4,534	1,786,586	2,792,256	3,910,133	7,252,470
Turpentine and rosin	1900	1,503	1,889	778,694	41,864	8,393,483	11,847,495	6,186,492	20,344,888
	1890	670	49	26,944	15,266	2,906,547	4,062,375	2,874,693	8,077,379
	1880	508	....	....	10,535	1,623,061	1,866,390	2,324,637	5,876,983
Type founding	1900	22	183	210,426	1,424	803,470	2,269,370	863,689	2,842.384
	1890	38	222	280,238	1,950	1,121,511	4,968,309	1,434,092	3,916,904
	1880	48	....	....	1,986	958,693	2,772,690	660,748	2,330,298
Typewriter, repairing	1900	85	32	23,690	185	116,220	134,123	110,603	367,176
	1890	....	....	....	....	....	....	....	....
	1880	....	....	....	....	....	....	....	....
Typewriters and supplies	1900	47	532	480,468	4,340	2,403,604	8,400,431	1,402,170	6,932,029
	1890	30	104	132,727	1,631	945,476	1,421,783	632,723	3,630,126
	1880	....	....	....	....	....	....	....	....
Umbrellas and canes	1900	261	590	505,330	5,695	1,889,673	4,677,917	8,457,167	13,855,908
	1890	435	841	768,937	6,022	2,435,860	5,646,289	7,562,921	13,771,927
	1880	172	....	....	3,608	1,158,682	2,658,725	4,502,777	6,917,463
Upholstering material	1900	270	358	363,926	5,098	1,715,073	7,593,598	5,881,621	10,048,164
	1890	152	248	232,148	3,231	1,221,914	4,427,654	3,013,253	5,733,039
	1880	79	....	....	1,477	523,417	1,690,200	1,023,154	1,837,705
Varnish	1900	181	1,198	1,939,333	1,546	995,803	17,550,892	10,939,131	18,687,240
	1890	140	706	1,016,346	1,145	732,715	11,308,943	7,805,663	13,795,510
	1880	81	....	....	573	366,716	3,778,100	3,699,684	5,721,174
Vault lights and ventilators	1900	14	11	12,775	138	81,184	120,750	140,719	338.111
	1890	15	31	44,814	174	115,780	175,225	185,529	455,413
	1880	12	....	....	115	66,204	138,450	108,981	273,395
Vinegar and cider	1900	1,552	456	391,541	1,801	720,316	6,187,728	3,272,565	6,454,524
	1890	694	751	428,388	2,637	720,681	5,858,395	3,268,455	6,649,300
	1880	306	....	....	1,257	413,451	2,151,766	1,888,173	3,418,038
Washing machines and clothes wringers	1900	118	104	104,264	1,509	548,707	2,404,569	2,174,762	3,735,243
	1890	163	209	158,635	1,030	430,888	1,712,953	1,354,550	2,489,175
	1880	61	....	....	476	176,287	652,549	587,643	1,182,714

MANUFACTURES OF THE UNITED STATES BY SPECIFIED INDUSTRIES—(Continued).

INDUSTRIES.	Years.	No. of Establishments.	Salaried Officials.	Salaries Paid.	Wage Earners.	Wages Paid.	Capital Invested.	Cost of Materials.	Value of Products.
Watch and clock materials	1900	20	16	$20,461	231	$152,234	$367,291	$105,549	$345,347
	1890	36	48	54,763	547	258,422	705,647	326,398	831,348
	1880	22	....	......	324	101,050	123,550	149,315	350,695
Watch cases	1900	30	235	289,366	3,907	1,924,847	8,119,292	4,393,647	7,783,960
	1890	45	190	219,699	3,679	1,896,587	4,727,100	5,022,455	8,618,479
	1880	27	....	......	1,758	976,041	1,584,740	2,812,922	4,589,314
Watch, clock, jewelry, repairing	1900	12,229	330	181,018	8,380	4,683,086	12,741,973	4,432,108	20,235,039
	1890	4,502	3,828	2,655,475	4,819	2,861,120	6,057,125	2,225,888	10,704,477
	1880	1,202	....	......	1,657	866,996	1,704,571	763,249	2,712,819
Watches	1900	13	165	294,449	6,880	3,586,723	14,235,191	1,291,318	6,822,611
	1890	19	80	101,119	6,595	3,587,808	10,106,114	995,740	6,051,066
	1880	11	....	......	3,346	1,712,276	4,144,327	982,224	3,271,244
Whalebone and rattan	1900	3	....	......	14	7,856	56,200	98,875	135,000
	1890	9	10	15,700	69	38,013	221,358	555,173	682,977
	1880	12	....	......	175	75,003	166,450	371,450	526,777
Wheelbarrows	1900	15	31	26,605	321	127,398	513,467	180,036	454,441
	1890	26	53	46,319	567	251,189	1,116,359	637,720	1,185,565
	1880	22	....	......	239	72,489	266,200	101,853	227,392
Whips	1900	60	228	245,596	1,287	478,176	1,893,703	1,278,324	2,734,471
	1890	81	143	141,380	944	403,142	1,632,404	821,614	2,153,818
	1880	88	....	......	1,056	415,007	1,078,070	701,225	1,698,633
Windmills	1900	68	281	249,684	2,045	940,474	4,308,666	2,172,098	4,354,312
	1890	77	185	135,808	1,110	555,775	2,463,231	1,123,947	2,475,050
	1880	69	....	......	596	244,197	697,100	523,594	1,010.542
Window shades	1900	207	314	335,233	2,012	871,532	5,507,842	6,046,062	8,868,259
	1890	182	374	421,516	2,025	1,016,255	4,167,457	5,341,874	9,239,669
	1880	131	....	......	1,279	479,133	1,385,515	1,635,700	2,826,518
Wire	1900	29	94	136,327	1,603	859,645	4,242,173	7,014,319	9,421,238
	1890	24	208	327,280	7,596	3,856,522	11,607,685	15,038,540	22,012,804
	1880	40	....	......	6,169	1,982,731	4,230,071	7,034,065	10,836,605
Wire-work, rope and cable	1900	597	995	999,904	9,255	3,934,525	16,374,629	10,858,229	19,942,882
	1890	569	963	897,618	6,954	3,085,591	11,757,902	8,325,435	15,552,857
	1880	305	....	......	4,459	1,708,175	3,681,893	5,410,084	9,127,818
Wood, preserving	1900	21	54	56,670	478	205,105	1,229,746	1,825,355	2,395,748
	1890	4	15	12,692	80	29,317	262,718	50,697	143,475
	1880	2	....	......	36	14,717	120,000	62,700	101,110
Wood, turned and carved	1900	1,171	564	487,862	11,569	4,375,345	10,278,418	5,835,492	14,338,503
	1890	872	1,028	893,370	7,402	3,333,553	7,825,668	3,947,227	10,939,647
	1880	916	....	......	7,240	2,585,578	4,482,800	3,637,950	8,426,817
Woodenware, not elsewhere specified	1900	104	160	137,981	3,206	1,073,303	3,824,512	1,468,383	3,585,542
	1890	167	220	186,921	2,881	1,050,413	2,711,609	1,498,773	3,597,602
	1880	287	....	......	5,033	1,539,571	3,606,794	2,635,720	5,235,474
Wool hats	1900	24	57	66,766	2,108	937,855	2,050,802	2,042,202	3,591,940
	1890	32	92	113,968	3,500	1,249,976	4,142,224	2,802,041	5,329,921
	1880	43	....	......	5,470	1,893,215	3,615,830	4,785,774	8,516,569
Wool pulling	1900	34	35	35,422	475	247,950	944,715	53,975	531,287
	1890	....	....	......	......	....	....	....	....
	1880	....	....	......	......	....	....	....	....
Wool scouring	1900	25	45	72,011	720	338,606	1,061,123	193,826	889,809
	1890	....	....	......	......	....	....	....	....
	1880	....	....	......	......	....	....	....	....
Woolen goods	1900	1,035	2,246	2,934,048	68,893	24,757,006	124,386,262	71,011,956	118,430,158
	1890	1,311	2,436	2,339,737	76,915	26,139,194	130,989,940	82,270,335	133,577,977
	1880	1,990	....	......	86,504	25,836,392	96,095,564	100,845,611	160,606,721
Worsted goods	1900	186	1,369	2,342,218	57,008	20,092,738	132,168,110	77,075,222	120,314,344
	1890	143	615	935,217	42,978	14,944,966	68,085,116	50,706,769	79,194,652
	1880	76	....	......	18,803	5,683,027	20,374,043	22,013,628	33,549,942
Zinc	1900	....	....	......	......	....	....	....	....
	1890	8	30,	38,270	1,052	614,826	1,007,320	2,005,682	2,976,730
	1880	16	....	......	1,298	666,970	2,022,000	1,771,055	2,725,165
Zinc smelting and refining	1900	31	208	440,200	4,869	2,355,921	14,041,810	13,286,058	18,188,498
	1890	....	....	......	......	....	....	....	....
	1880	....	....	......	......	....	....	....	....
All other industries	1900	4	22	30,680	132	58,661	447 959	299,339	503,449
	1890	12	49	62,448	1,699	559,632	2,952,222	1,773,808	3,142,145
	1880	....	....	......	......	....	....	....	....

THE AUTOMOBILE INDUSTRY.—The census of 1900 gives the number of automobile manufacturers in the United States as 109; number of automobiles manufactured, 4,192; value, $4,899,443. The estimated number manufactured in 1901 was 10,000, valued at $10,000,000. For 1902 the estimate of automobiles in the United States, including those imported, was 40,000 which, at an average cost of $1,300 each, would give a total value of $54,000,000. By 1903, 300 establishments were said to be engaged in manufacturing complete automobiles, and 2,000 others in the manufacture of component parts. In 1904 and 1905 the number greatly increased.

Mineral Products of the United States.

Report of the United States Geological Survey. l. t.=long ton; s. t.=short ton.

For the third time, the total value of the commercial mineral production of the United States exceeded $1,000,000,000; the figures for 1902 being $1,260,639,415; for 1901, $1,086,584,851; for 1900, $1,063,678,053; for 1899, $972,208,008.

METALS.

Product.	Quantity.	Value.	Product.	Quantity.	Value.
Aluminum, lbs.	7,300,000	$2,284,590	Molybdenum, lbs.	16	$62,125
Antimony, s. t.	3,561	634,506	Nickel, lbs.	5,748	2,701
Copper, lbs.	659,508,644	76,568,954	Pig Iron, l. t.	17,821,307	372,775,000
Ferromanganese, l. t.	212,981	13,852,199	Platinum, ozs.	94	1,814
Ferromolybdenum, lbs.	7	19,600	Quicksilver, flasks	34,291	1,467,848
Ferrotungsten, lbs.	6	4,060	Silver, fine ounces	55,500,000	71,757,575
Gold, fine ounces	3,870,000	80,000,000	Tin, lbs.	None.	....
Iridium	....	400	Tungsten, lbs.	37	50,020
Lead, s. t.	270,000	22,140,000	Zinc, s. t.	156,927	14,625,596

NON-METALLIC PRODUCTS, ORES AND MINERALS.

Product.	Quantity.	Value.	Product.	Quantity.	Value.
Arsenious oxide, s. t.	1,353	$81,180	Limestone (for flux), l. t.	11,878,675	$5,271,252
Asbestos, s. t.	1,005	16,200	Lithium, s. t.	1,245	25,750
Asphaltum, s. t.	105,458	765,048	Magnesite, s. t.	3,466	21,362
Asphaltum limestone, s. t.	1,859	7,782	Manganese ore, l. t.	16,477	177,911
Barytes (crude), s. t.	61,668	203,154	Marls, s. t.	12,439	12,741
Bauxite, l. t.	29,222	128,206	Mica (scrap), s. t.	1,400	35,006
Bismuth (ore), s. t.	37	2,960	Mica (sheet), lbs.	373,266	83,483
Bituminous sandstone, s. t.	57,837	157,093	Millstones	....	59,808
Borax (crude), s. t.	2,600	91,000	Mineral paints, s. t.	73,049	944,332
Borax (refined), s. t.	17,404	2,447,614	Mineral waters (sold), gals.	64,859,451	8,793,761
Brick clay	....	15,000,000	Molybdenum ore, s. t.	15	750
Bromine, lbs.	513,890	128,472	Monzanite, lbs.	802,000	64,160
Calcium borate, s. t.	15,605	2,434,994	Ochre, s. t.	55,320	705,026
Cement, natural, bbls.	9,083,759	4,087,692	Oilstones	....	221,762
Cement, Portland, bbls.	16,535,000	16,637,500	Ozocerite (refined), lbs.	None.	....
Chrome ore, l. t.	315	4,725	Petroleum (crude), bbls.	88,766,916	71,178,910
Clay (other than brick), s. t.	1,455,357	2,061,072	Phosphate rock, l. t.	1,490,314	4,693,444
Coal, anthracite, l. t.	36,940,710	76,173,586	Precious stones	....	328,450
Coal, bituminous, s. t.	260,216,844	290,858,483	Pumice stone, s. t.	700	2,750
Cobalt oxide, lbs.	3,730	6,714	Pyrites, l. t.	207,874	947,089
Copper sulphate, lbs.	48,763,538	2,028,563	Rutile, lbs.	None.	....
Corundum Emery ... } s. t.	4,251	104,605	Salt, bbls.	23,849,221	5,668,636
Crystalline quartz, s. t.	15,104	84,335	Sand for glass, s. t.	943,135	807,797
Feldspar, s. t.	45,287	250,424	Slate	....	no statistics.
Flint, s. t.	36,365	144,209	Soapstone, s. t.	26,854	525,157
Flourspar, s. t.	48,018	271,832	Soda, natural, s. t.	16,000	208,000
Fuller's earth, s. t.	11,492	98,144	Stone (building, etc.)	....	64,559,099
Garnet (abrasive), s. t.	3,926	132,820	Sulphur, l. t.	7,443	220,560
Gas, natural	....	30,867,668	Talc, common, s. t.	19,632	413,497
Gilsonite, s. t.	4,052	61,182	Talc, fibrous, s. t.	71,100	615,350
Graphite, crystalline, lbs.	4,176,824	153,147	Tripoli, see Infusorial Earth	....	....
Graphite, amorphous, s. t.	4,739	55,964	Uranium and Venadium, s. t.	3,810	48,125
Grindstones	....	667,431	Uintaite, see Gilsonite	....	....
Gypsum, s. t.	816,478	2,089,341	Venadium, see Uranium	....	....
Infusorial earth and Tripoli, s. t.	5,655	53,244	Zinc-lead, s. t.	4,000	225,000
Iron ore, l. t.	34,636,121	64,769,546	Zinc, ore (exported), s. t.	54,613	1,449,104
Lepidolite, s. t.	None.	....	Zinc, white, s. t.	52,645	4,016,499
			Estimated unspecified mineral products	....	1,000,000

SECONDARY MINERALS AND CHEMICAL PRODUCTS.

Product.	Quantity.	Value.	Product.	Quantity.	Value.
Alum, s. t.	8,539	$229,500	Gas, artificial, cubic feet	29,079,073,555	$29,342,881
Aluminum sulphate, s. t.	87,085	1,938,671	Graphite, artificial, lbs.	2,358,828	110,700
Ammonium sulphate, s. t.	71,649	4,264,650	Lead, white, s. t.	114,658	11,978,172
Carborundum, lbs.	3,741,500	374,150	Lead, red, s. t.	11,669	1,262,712
Cement, slag, bbls.	547,175	465,099	Lead, orange mineral, s. t.	867	138,349
Coal tar, gals.	53,171,733	1,873,966	Litharge, s. t.	12,755	1,299,413
Coke, s. t.	23,090,342	51,864,575	Soda, manufactures, l. t.	562,000	10,290,220
Copperas, s. t.	19,784	118,474	Venetian red, s. t.	11,758	196,905
Crushed steel, s. t.	368	51,450			

RANK OF PETROLEUM-PRODUCING STATES WITH QUANTITY AND PERCENTAGE OF PRODUCTION.

State.	Barrels (each 42 gals.)	Percentage.	State.	Barrels (each 42 gals.)	Percentage.
Ohio	21,014,231	23.67	Kansas	331,749	.38
Texas	18,083,658	20.37	Kentucky and Tennessee	185,331	.21
California	13,984,268	15.75	Indian Territory	37,000	.05
West Virginia	13,513,345	15.23	Wyoming	6,253	
Pennsylvania	12,063,880	13.59	Michigan, Missouri, Oklahoma	857	
Indiana	7,480,896	8.42	Illinois	200	
New York	1,119,730	1.26			
Louisiana	548,617	.62			
Colorado	396,901	.45	Total	88,766,916	100.00

COAL PRODUCTION, BY STATES,

[*From Engineering and Mining Journal.*]

STATES		1899.			1900.		
		Tons.	VALUE AT MINE.		Tons.	VALUE AT MINE.	
			Total.	Per Ton.		Total.	Per Ton.
BITUMINOUS:							
Alabama		7,484,763	$7,484,763	$1.00	9,000,000	$10,800,000	$1.20
Alaska		2,300	12,282	5.34	2,600	14,300	5.50
Arkansas		913,743	1,233,553	1.35	950,000	1,330,000	1.40
California		167,161	430,631	2.58	171,106	468,068	2.74
Colorado		4,747,812	8,308,671	1.75	5,436,490	10,872,980	2.00
Georgia		203,775	183,081	.90	224,190	202,885	.91
Illinois		23,434,445	18,443,946	.78	25,153,929	22,510,360	.89
Indiana		6,158,224	5,542,402	.90	7,081,957	7,081,957	1.00
Indian Territory		1,404,442	2,106,663	1.50	1,900,127	3,135,209	1.65
Iowa		4,675,000	5,937,350	1.27	4.908,750	6,412,338	1.31
Kansas		4,096,895	5,124,248	1.25	4,100,000	5,125,000	1.25
Kentucky		4,668,800	3,720,100	.80	5,000,000	3,879,425	.78
Maryland		5,080,248	4.318,211	.85	3,900,000	4,173,000	1.07
Michigan		500,000	720,000	1.44	950,000	1,377,500	1.45
Missouri		3,191,811	3,582,111	1.12	2,995,022	3,643,975	1.21
Montana		1,409,882	2,227,998	1.58	1,621,364	2,577,969	1.59
Nebraska		1,000	3,000	3.00	900	2,500	2.78
New Mexico		1,004,034	1,495,588	1.49	1,145,739	1,722,780	1.50
North Carolina		26,994	37,792	1.40	18,000	22,500	1.25
North Dakota		120,597	120,597	1.00	138,000	138,000	1.00
Ohio		16,695,949	14,191,557	.85	21,704,733	21,270,638	.98
Oregon		86,886	232,854	2.68	49,560	133,812	2.70
Pennsylvania		73,066,943	57,722,885	.79	87,680,331	82,419,511	.94
Tennessee		3,736,134	3,706,617	.99	4,000,000	4,400,000	1.10
Texas		940,622	1,646,088	1.75	1,013,006	1,671,460	1.65
Utah		882,496	1,553,193	1.76	1,281,800	2,448,238	1.91
Virginia		2,111,391	1,372,404	.65	2,334,295	1,984,151	.85
Washington		1,917,607	3,355,812	1.75	2,175,000	4,893,750	2.25
West Virginia		18,201,189	11,830,773	.65	21,153,340	14,165,183	.67
Wyoming		4,525,207	5,656,509	1.25	4,500,000	5,625,000	1.25
Total bituminous	Short tons	191,456,350	$172,301,679	$0.90	220,592,239	$224,502,483	$1.02
	Metric tons	173,688,061		.99	200,119,966		1.12
CANNEL:							
Kentucky	Short tons	36,639	$91,597	$2.50	25.000	$60,750	$2.43
	Metric tons	33,239		2.76	22,680		2.68
ANTHRACITE:							
Colorado		59,067	$162,434	$2.75	59,244	$177,732	$3.00
New Mexico		45,000	105,000	2.33	41,595	114,385	2.75
Pennsylvania		60,518,331	103,486,346	1.71	54,154,701	96,936,915	1.79
Total anthracite	Short tons	60,622,398	$103,753,780	$1.71	54,255,540	$97,229,032	$1.79
	Metric tons	54,996,279		1.89	49,220,303		1.97
Grand total	Short tons	252,115,387	$276,147,056	$1.10	274,872,779	$321,792,265	$1.17
	Metric tons	228,717,579		1.21	249,362,949		1.29

Coal production for 1903: Bituminous, 280,000,000 tons; anthracite. 59,000,000 tons.

ZINC PRODUCTS OF THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

STATES.	Spelter.	Zinc Oxide.	Sheet Zinc.	Sulphuric Acid.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*
United States	227,646,314	75,114,904	35,445,374	117 655 214
Illinois	56,071,801		35,445,374	117,655,214
Indiana	8,718,562			
Kansas	109,031,632			
Missouri	36,213,583			
New Jersey		40,946,186		
Pennsylvania	9,562,852	19,288,968		
Virginia	8,047,884			
Wisconsin		14,879,750		

Total capital invested, $14,141,810. Value of products, $18,188,498.

COMMERCIAL AND COINING VALUE OF GOLD AND SILVER FROM UNITED STATES MINES.

[*From Report of Director of the Mint.*]

Calendar Year.	Gold.		Silver.		
	Fine Ounces.	Value.	Fine Ounces.	Commercial Value.	Coining Value.
1850	2,418,750	$50,000,000	38,672	$50,892	$50,000
1851	2,660,625	55,000,000	38,672	51,704	50,000
1852	2,902,500	60,000,000	38,672	51,279	50,000
1853	3,144,375	65,000,000	38,672	52,130	50,000
1854	2,902,500	60,000,000	38,672	52,130	50,000
1855	2,060.625	55,000,000	38,672	51,985	50,000
1856	2,660,625	55,000,000	38,672	51,985	50,000
1857	2,660,625	55,000,000	38,672	52,333	50,000
1858	2,419,000	50,000,000	386,720	519,752	500,000
1859	2,419,000	50,000,000	77,344	105,188	100,000
1860	2,225,250	46,000,000	116,016	156,832	150,000
1861	2,080,125	43,000,000	1,547,000	2,062,151	2,000,000
1862	1,896,300	39,200,000	3,480,000	4,683,880	4,500,000
1863	1,935,000	40,000,000	6,574,220	8,842,326	8,500,000
1864	2,230,100	46,100,000	8,510,000	11,445,950	11,000,000
1865	2,574,759	53,225,000	8,701,200	11,642,206	11,250,000
1866	2,588,062	53,500,000	7,734,400	10,356,362	10,000,000
1867	2,502.197	51,725,000	10,441.000	13,865,648	13,500,000
1868	2,322,000	48,000,000	9,281,250	12,306,938	12,000,000
1869	2,370,375	49,500,000	9,281,250	12,297,656	12,000,000
1870	2,418,750	50,000,000	13,000,000	17,264,000	16,000,000
1871	2,104,300	43,500,000	17,789,000	23,588,214	23,000,000
1872	1,741,500	36,000,000	22,244,100	29,406,700	28,750,000
1873	1,741,500	36,000,000	27,650,000	35,750,000	35,750,000
1874	1,620,563	33,500,000	28,849,000	36,869,000	37,300.000
1875	1,615,725	33,400,000	24,518,000	30,549,000	31,700,000
1876	1,930,162	39,900,000	30,009,000	34,690.000	38,800,000
1877	2,268,788	46,900,000	30,783,000	36,970,000	39,800,000
1878	2,476,800	51,200,000	34.960,000	40,270,000	45,200,000
1879	1,881,787	38,900,000	31,550,000	35,430,000	40,800,000
1880	1,741,500	36,000,000	30,320,000	34,720,000	39,200,000
1881	1,678,612	34,700,000	33,260,000	37,850,000	43,000,000
1882	1,572,187	32,500,000	36,200,000	41,120,000	46,800,000
1883	1,451,250	30,000,000	35,730,000	39,660,000	46,200,000
1884	1,489,950	30,800,000	37,800,000	42,070,000	48,800,000
1885	1,538,325	31,800,000	39,910,000	42,500,000	51,600,000
1886	1,693,125	35,000,000	39,440,000	39,230,000	51,000,000
1887	1,596,375	33,000,000	41,200,000	40,410,000	53,350,000
1888	1,604,841	33,175,000	45,780,000	43,020,000	59,195,000
1889	1,587,000	32,800,000	50,000,000	46,750,000	64,646,000
1890	1,588,880	32,845,000	54,500,000	57,225,000	70,465,000
1891	1,604,840	33,175,000	58,330,000	57,630,000	75,417,000
1892	1,596,375	33,000,000	63,500,000	55,563,000	82,101,000
1893	1,739,323	35,955.000	60,000,000	46,800,000	77,576,000
1894	1,910,813	39,500,000	49,500,000	31,422,000	64,000,000
1895	2,254,760	46,610,000	55,727,000	36,445,000	72,051,000
1896	2,568,132	53,088,000	58,835,000	39,655,000	76,069,000
1897	2,774,935	57,363,000	53,860,000	32,316,000	69,637,000
1898	3,118,398	64,463,000	54,438,000	32,118,000	70,384,000
1899	3,437,210	71,053,000	54,764,000	32,859,000	70,806,000
1900	3,829,897	79,171,000	57,647,000	35,741,140	74,533,495
1902	3,870,000	80,006,000	55,500,000	29,445,000	71,757,600
1903	3,560,000	73,591,700	54,300,000	29,322,000	70,206,000

TWENTY WEEKS OF ANTHRACITE COAL STRIKE, 1902.

Loss to operators in price of coal	$45,350,000
Loss to strikers in wages	25,200,000
Loss to employes other than strikers	5,570,000
Loss to railroads in earnings	10,500,000
Loss to business men in strike region	14,000,000
Loss to business men outside region	8,500,000
Cost of maintenance coal and iron police	$1,150,000
Cost of maintaining non-union workers	480,000
Cost of maintaining troops in field	320,000
Damage to mines and machinery	6,500,000
Total loss	$117,570,000

APPALLING DEATH-ROLL OF THE PITS.

Location.	Date.	Lives Lost.
Diamond Mine, Braidwood, Ill.	February 16, 1883	77
Pocahontas Mine, Virginia	March 13, 1884	150
Santa Fe Mine, Kansas	November 10, 1888	100
Maurice Wood, Pa.	September 6, 1889	63
Loughton, Pa.	October 16, 1889	59
Mammoth Mine, Mt. Pleasant, Pa.	January 27, 1891	110
Osage County, I. T.	January 8, 1892	200
Dartmouth Mine, Pennsylvania	August 19, 1893	50
Vulcan, Col.	February 18, 1896	50
Red Ash, W. Va	March 6, 1900	100
Pleasant Valley, Utah	May 2, 1900	300
Newcastle, Col.	September 16, 1901	75
Teaterville, Tenn	May 19, 1902	200
Cambria Mine, Johnstown, Pa.	July 10, 1902	125
Twenty minor disasters		400

In other countries there have been many mining disasters of magnitude in the last twenty years. In Wales, England, France, Austria, British Columbia and Prussia more than fifteen hundred lives have been sacrificed through various causes, but principally by explosions.

COINING VALUE OF GOLD PRODUCT BY STATES AND TERRITORIES

[*From Reports of Director of Mint.*]

STATE OR TERRITORY.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Alaska	$1,113,550	$1,615,300	$2,055,700	$1,778,000	$2,524,800	$5,459,500	$8,171,000
Arizona	1,784,475	1,965,300	2,604,200	2,895,900	2,465,100	2,566,100	4,193,400
California	13,570,397	14,928,600	15,235,900	14,618,300	15,637,900	15,197,800	15,816,200
Colorado	9,491,514	13,305,100	14,911,000	19,104,200	23,195,300	25,982,800	28,829,400
Georgia	97,736	128,000	151,000	149,300	128,600	113,000	116,700
Idaho	2,081,281	1,779,600	2,155,300	1,701,700	1,716,900	1,889,000	1 724,700
Michigan	44,444	42,900	37,200	62,700	100	100	29,000
Montana	3,651,410	4,101,400	4,324,700	4,373,400	5,126,900	4,760,100	4,698,000
Nevada	1,137,819	1,552,200	2,468,300	2.976,400	2,994,500	2,219,000	2,006,200
New Mexico	567,751	492,200	475,800	356,500	539,000	584,100	832,900
North Carolina	46,594	54,200	44,300	34,600	84,000	34,500	28,500
Oregon	1,422,056	888,300	1,251,000	1,353,100	1,177,600	1,429,500	1,694,700
South Carolina	97,839	128,400	63,300	84,700	104,200	160,100	121,000
South Dakota	3,299,130	3,869,500	4,969,800	5,694,900	5,699,700	6,469,500	6,177,600
Texas	....	....	8,000	7,400	300	6,900	1,100
Utah	868,031	1,373,000	1,899,900	1,726,100	2,285,400	3,450,800	3,972,200
Washington	195,100	351,000	405,700	419,900	766,200	685,400	718,200
Other	30,903	35,000	26,900	25,900	16,500	45,200	40,200
Total value	$39,500,000	$46,610,000	$53,088,300	$57,363,000	$64,463,000	$ 71,053,400	$79,171,000
Total fine ounces	1,910,813	2,254,760	2,568,132	2,774,935	3,118,398	3,437,210	3,829,897

COINING VALUE OF SILVER PRODUCT BY STATES AND TERRITORIES

[*From Reports of Director of Mint.*]

STATE OR TERRITORY.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Alaska	$28,782	$86,880	$187,863	$150,497	$119,467	181,140	$94,772
Arizona	1,483,254	1,275,990	2,473,373	2,896,032	2,904,954	2,040,630	3,872,970
California	927,506	845,180	776,533	613,366	830,448	1,065,762	1,217,165
Colorado	30,101,203	30,252,600	29,185,293	27,974,335	29,498,958	29,301,527	26,484,234
Georgia	420	520	776	776	646	517	517
Idaho	4,251,860	4,021,780	6,658,457	6,336,905	6,560,065	4,980,105	8,312,372
Michigan	45,410	48,220	76,283	77,964	41,891	145,843	131,879
Montana	16,575,458	22,715,600	21,640,404	20,257,487	19,144,663	20,810,990	18,353,648
Nevada	1,338,377	1,236,290	1,355,859	1,588,881	1,040,808	1,090,457	1,756,703
New Mexico	817,368	898,320	889,277	697,535	549,883	650,731	561,519
North Carolina	455	520	646	388	905	388	14,481
Oregon	33,837	65,930	78,988	89,212	168,081	173,641	149,204
South Carolina	394	520	388	259	388	517	517
South Dakota	76,248	205,960	296,727	190,836	196,913	188,251	693,269
Texas	555,073	581,810	679,305	523,249	611,426	672,323	617,244
Utah	7,617,812	9,655,720	11,413,463	8,100,978	8,385,810	9,171,135	11,982,351
Washington	146,308	158,640	355,426	138,214	328,921	330,990	290,263
Other	235	520	129	258	258	1,679	387
Total coining value	$64,000,000	$72,051,000	$76,069,236	$69,637,172	$70,384,485	$70,806,626	$74,533,495
Total fine ounces	49,500,000	55,727,000	58,834,800	53,860,000	54,438,000	54,764,500	57,647,000

MARVELS OF IRON ORE.

Carroll D. Wright, Commissioner of Labor, gives the following as one of the marvels of transforming iron ore into its higher forms of metal:

Seventy-five cents' worth of iron ore	$0.75	Converted into needles becomes worth	$6,800.00
Converted into bar-iron becomes worth	5.00	Converted into fancy buttons becomes worth	30,000.00
Converted into horse-shoes becomes worth	10.00	Converted into watch-springs becomes worth	300,000.00
Converted into table-knives becomes worth	150.00	Converted into hair-springs becomes worth	400,000.00

COMPARATIVE VALUE OF RAREST METALS.

These values are only approximate and subject to the usual commercial variations.

Barium	$795.00 per lb.	Gold	$296.62 per lb.	Palladium	$400.00 per lb.	Strontium	$128.00 per oz.
Calcium	1.50 per oz.	Iridium	650.00 per lb.	Rhodium	612.00 per oz.	Terbium	4,080.00 per lb.
Cereum	160.00 per oz.	Lithium	160.00 per oz.	Rubidum	200.00 per oz.	Vanadium	320.00 per oz.
Didymium	160.00 per oz.	Niobium	128.00 per oz.	Ruthenium	112.00 per oz.	Yttrium	144.00 per oz.
Erbium	140.00 per oz.	Osmium	610.00 per lb.	Silver (variable)	18.00 per lb.	Zirconium	240.00 per oz.
Glucinum	4.50 per oz.						

Aluminum, 32c. per lb.; Radium, $56,700 per oz.; Kunzite, classed with Radium.

PRODUCTION OF REFINED LEAD BY STATES AND TERRITORIES, IN SHORT TONS.

[*From Twelfth* (1900) *Census.*]

STATES AND TERRITORIES.	Total.	Soft Lead.	Hard or Antimonial Lead.	All Other Lead (including Doré Bars).
United States	293,965	45,237	8,393	240,335
California	8,945	....	596	8,349
Colorado	22,064	....	702	21,362
Idaho	....	....	....	....
Illinois	35,897	71	941	34,885
Iowa	400	400	....	....
Kansas	41,959	398	1,328	40,233
Missouri	41,976	41,976	....	....
Montana	....	....	....	....
Nebraska	59,381	2,119	2,624	54,638
New Jersey	80,856	113	2,202	78,541
New Mexico	....	....	....	....
Texas	....	....	....	....
Utah	....	....	....	....
Virginia	160	160	....	....
Washington	2,327	....	....	2,327

PRODUCTION OF COPPER IN THE UNITED STATES

[*From Twelfth* (1900) *Census.*]

YEAR.	Total Production, United States.	Lake Superior.	Percentage of Lake Superior of Total Product.	Montana.	Percentage of Montana of Total Product.	Arizona.	Percentage of Arizona of Total Product.
	Long Tons.	*Long Tons.*		*Long Tons.*		*Long Tons.*	
1881	32,000	24,363	76.1	....	....	....	....
1882	40,467	25,439	62.9	....	....	....	....
1883	51,574	26,653	51.6	11.011	21.3	10,658	20.7
1884	64,708	30,961	47.8	19,256	29.8	11,935	18.4
1885	74,052	32,209	43.5	30,267	40.9	10,137	13.7
1886	70,430	36,124	51.3	25,362	36.0	6,990	9.9
1887	81,017	33,941	41.9	35,133	43.4	7,910	9.7
1888	101,054	38,604	38.2	43,704	43.2	14,195	14.0
1889	101,239	39,364	38.7	43,849	43.3	13,654	13.5
1890	115,966	45,273	38.9	50,437	43.5	15,534	13.4
1891	126,839	50,992	40.2	50,028	39.5	17,800	14.0
1892	154,018	54,999	35.7	72,860	47.3	17,160	11.1
1893	147,033	50,270	34.2	69,290	47.1	19,200	13.1
1894	158,120	51,031	32.3	81,729	51.6	19,873	12.6
1895	169,917	57,737	34.0	84,900	50.0	21,408	12.6
1896	205,384	64,073	31.2	99,071	48.2	32,560	15.8
1897	220,571	64,858	29.4	102,807	46.6	36,398	16.5
1898	235,050	66,291	28.2	92,041	39.2	49,624	21.1
1899	253,870	65,803	25.9	100,503	39.6	59,399	23.4

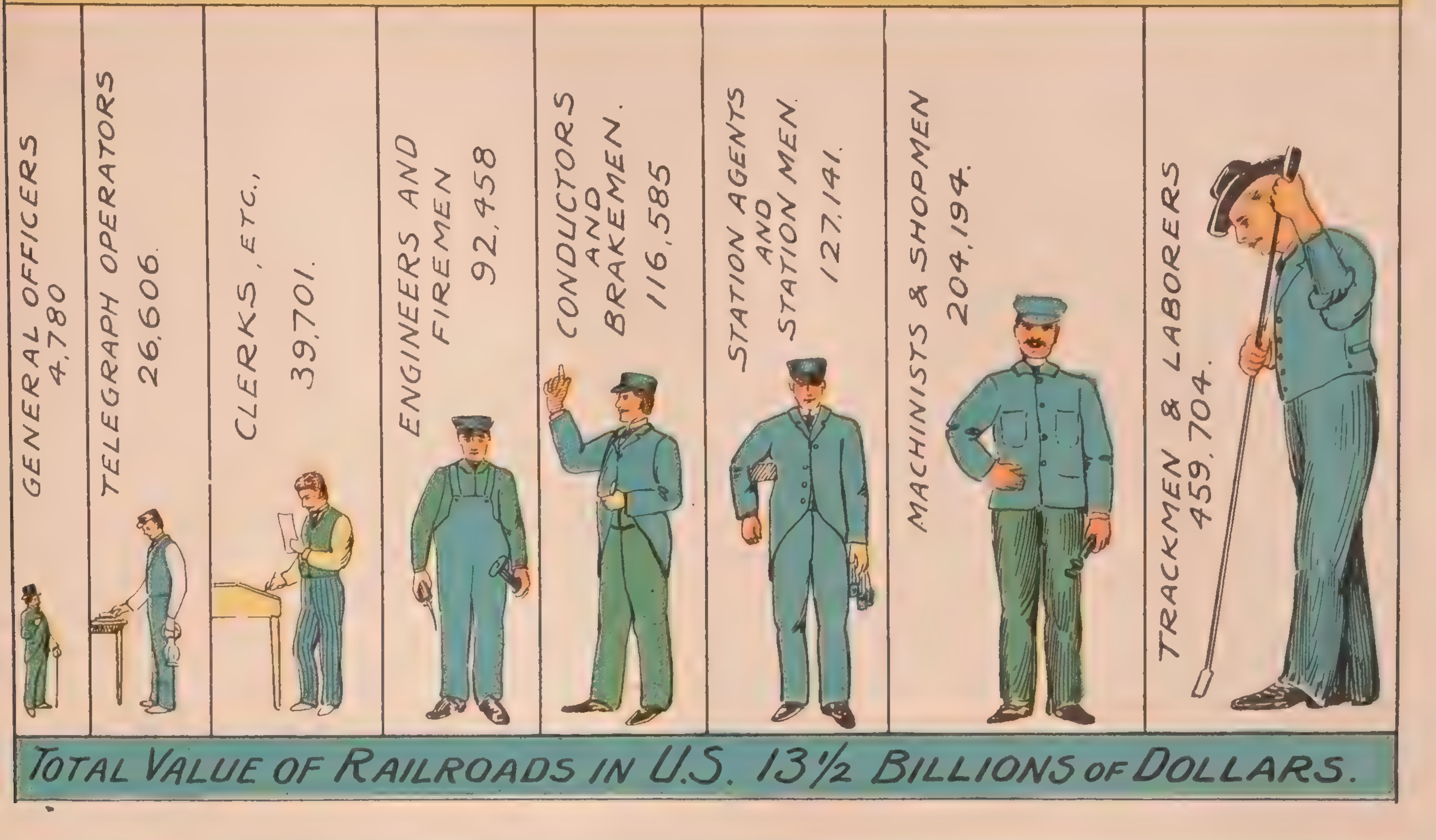
TOTAL VALUES OF ORES, MINERALS AND METALS.

	1900.	1903.
Total value of metals produced from foreign ores and bullion	$96,364,939	77,268,212
Totals of ores and minerals produced in the United States	672,086,716	1,053,193,276
Total of metals produced in the United States	524,432,533	534,127,629
Total of secondary mineral products	76,372,375	84,688,884
Grand totals	$1,369,256,563	1,749,278,001

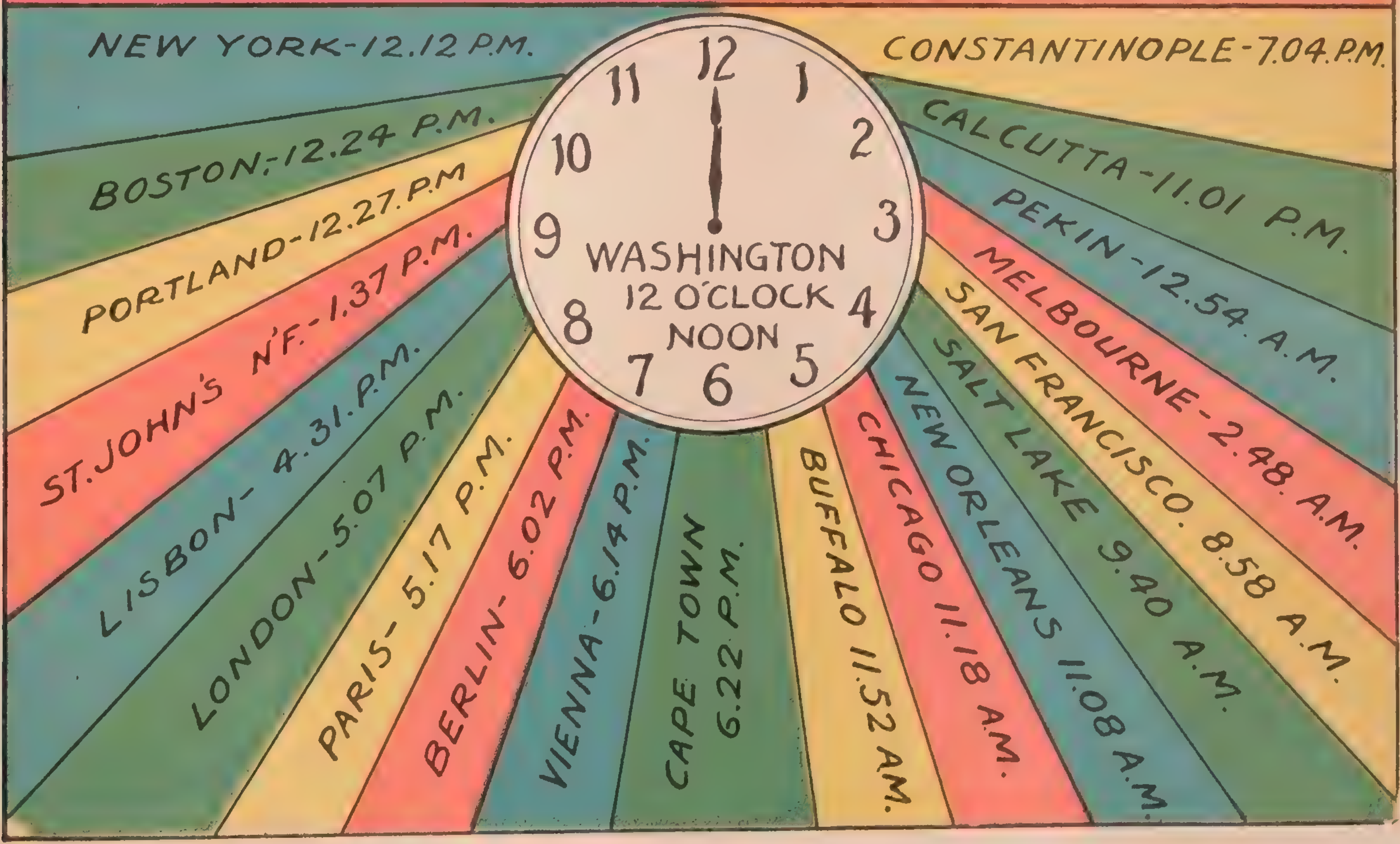
COMPOSITION OF METALS.

Bath metal is composed of copper and tin.
Bell metal is composed of copper and zinc.
Britania metal is composed of antimony, copper, bismuth and tin.
Cannon metal is composed of copper and tin.
Copper (white) is composed of copper and arsenic.
Dutch gold is composed of copper and zinc.
German silver is composed of copper, nickel, tin and zinc.
Gold (standard) is composed of gold and copper.
Gun metal is composed of copper and tin.
Pewter is composed of lead and tin.
Silver (standard) is composed of silver and copper.
Solder is composed of lead and tin.
Type metal is composed of lead and antimony.

PROPORTIONATE NUMBER OF R.R. EMPLOYEES IN U.S.

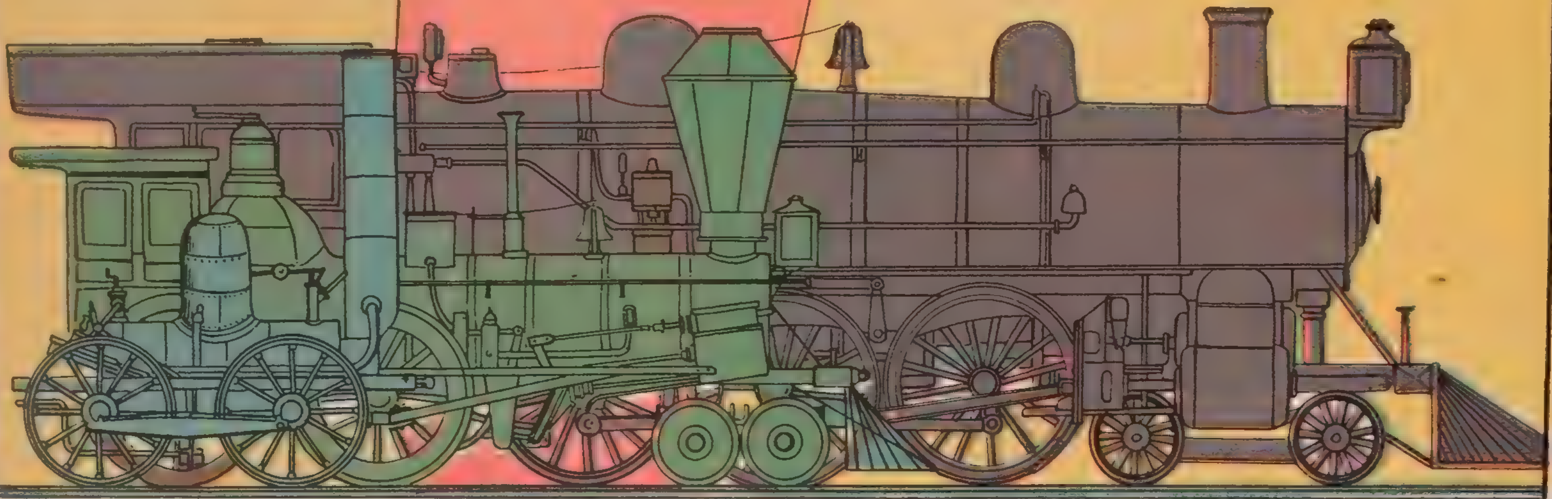


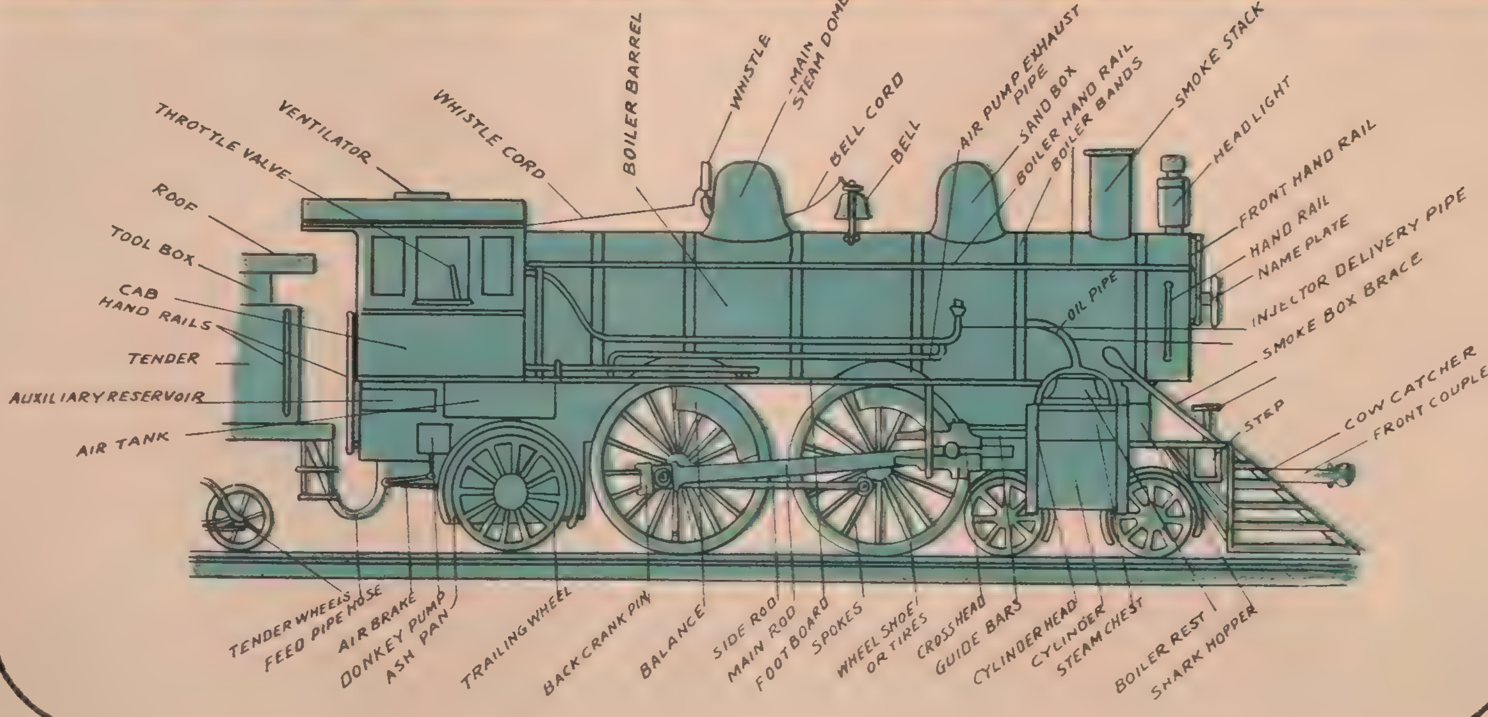
DIFFERENCE OF TIME BETWEEN WASHINGTON AND OTHER CITIES.



DEVELOPMENT OF THE LOCOMOTIVE IN 72 YEARS.

DE WITT CLINTON. 1831.		ENGINE OF 1850		ENGINE OF TODAY	
CYLINDERS	5½ × 16 inch	CYLINDERS	16 × 20 inches	CYLINDERS	22 × 28 inches
DRIVERS.	54 inch	DRIVERS	66 inches	WHEELS	72 inches.
BOILER PRESSURE.	80 lbs	PRESSURE	100 lbs.	BOILER PRESSURE	200 lbs.
TRACTIVE EFFORT, =	919 lbs.	TRACTIVE EFFORT =	7758 lbs	TRACTIVE EFFORT =	32,000 lbs.





Railways and Communication in the United States.

RAILROADS IN THE UNITED STATES AND THEIR INCREASE FOR SIXTY-NINE YEARS.

[*From Poor's Railroad Manual.*]

CALENDAR YEAR.	Miles in Operation.	Annual Increase of Mileage.	CALENDAR YEAR.	Miles in Operation.	Annual Increase of Mileage.	CALENDAR YEAR.	Miles in Operation.	Annual Increase of Mileage.
1832	229	134	1855	18,374	1,654	1878	81,747	2,665
1833	380	151	1856	22,016	3,642	1879	86,556	4,809
1834	633	253	1857	24,503	2,487	1880	93,262	6,706
1835	1,098	465	1858	26,968	2,465	1881	103,108	9,846
1836	1,273	175	1859	28,789	1,821	1882	114,677	11,569
1837	1,497	224	1860	30,626	1,837	1883	121,422	6,745
1838	1,913	416	1861	31,286	660	1884	125,345	3,923
1839	2,302	389	1862	32,120	834	1885	128,368	3,023
1840	2,818	516	1863	33,170	1,050	1886	136,386	8,018
1841	3,535	717	1864	33,908	738	1887	149,262	12,876
1842	4,026	491	1865	35,085	1,177	1888	156,164	6,902
1843	4,185	159	1866	36,801	1,716	1889	161,326	5,162
1844	4,377	192	1867	39,250	2,249	1890	166,703	5,377
1845	4,633	256	1868	42,229	2,979	1891	170,779	4,076
1846	4,930	297	1869	46,844	4,615	1892	175,220	4,441
1847	5,598	668	1870	52,922	6,078	1893	177,566	2,346
1848	5,996	398	1871	60,293	7,379	1894	179,465	1,899
1849	7,365	1,369	1872	66,171	5,878	1895	181,115	1,650
1850	9,021	1,656	1873	70,268	4,097	1896	182,819	1,704
1851	10,982	1,961	1874	72,385	2,117	1897	184,637	1,818
1852	12,908	1,926	1875	74,096	1,711	1898	186,852	2,215
1853	15,360	2,452	1876	76,808	2,712	1899	190,818	3,966
1854	16,720	1,360	1877	79,082	2,274	1900	194,321	3,503
						1903	197,887	....

RAILROAD MILEAGE BY STATES FOR FORTY YEARS.

[*From Poor's Railroad Manual.*]

STATES AND GROUPS OF STATES.	1860.	1870.	1880.	1890.	1897.	1898.	1899.	1900.
NEW ENGLAND:								
Maine	472	786	1,005	1,377.47	1,757.47	1,879.98	1,917.21	1,928.44
New Hampshire	661	736	1,015	1,142.25	1,173.54	1,174.61	1,174.61	1,193.15
Vermont	554	614	914	991.42	985.74	987.36	999.86	1,045.28
Massachusetts	1,264	1,480	1,915	2,096.69	2,117.59	2,107.59	2,111.42	2,111.42
Rhode Island	108	136	210	217.43	223.03	223.03	219.19	209.29
Connecticut	601	742	923	1,006.64	1,008.15	1,008.15	1,025.40	1,025.40
Group I, total	3,660	4,494	5,977	6,831.90	7,265.52	7,380.72	7,447.69	7,512.98
MIDDLE ATLANTIC:								
New York	2,682	3,928	5,957	7,684.41	8,175.65	8,152.64	8,126.17	8,095.00
New Jersey	560	1,125	1,684	2,109.06	2,239.16	2,243.02	2,236.62	2,242.93
Pennsylvania	2,598	4,656	6,191	8,638.99	9,967.10	9,938.74	10,130.33	10,310.08
Delaware	127	197	275	314.95	349.10	350.11	349.11	348.62
Maryland	386	671	1,040	1,270.04	1,313.04	1,325.04	1,339.44	1,339.34
District of Columbia				20.66	24.88	24.88	24.88	24.88
Group II, total	6,353	10,577	15,147	20,038.11	22,068.93	22,034.43	22,206.55	22,360.85
CENTRAL NORTHERN:								
Ohio	2,946	3,538	5,792	7,980.49	8,769.54	8,844.10	8,877.51	8,885.46
Michigan	779	1,638	3,938	7,108.48	7,814.15	7,948.97	8,027.66	8,092.46
Indiana	2,163	3,177	4,373	6,109.19	6,410.32	6,440.92	6,496.37	6,563.22
Illinois	2,790	4,823	7,851	10,165.67	10,847.79	10,861.42	10,988.89	11,058.37
Wisconsin	905	1,525	3,155	5.612.62	6,315.21	6,380.69	6,459.43	6,538.87
Group III, total	9,583	14,701	25,109	36,976.45	40,157.01	40,476.10	40,849.86	41,138.38

RAILROAD MILEAGE BY STATES FOR FORTY YEARS—(Continued).

STATES AND GROUPS OF STATES.	1860.	1870.	1880.	1890.	1897.	1898.	1899.	1900.
SOUTH ATLANTIC:								
Virginia	1,379	1,486	1,893	3,359.65	3,628.70	3,674.53	3,721.45	3,794.93
West Virginia	352	387	691	1,433.30	2,161.19	2,199.51	2,230.47	3,484.69
North Carolina	937	1,178	1,486	3,128.17	3,477.65	3,573.27	3,656.33	3,732.64
South Carolina	973	1,139	1,427	2,289.15	2,666.07	2,655.45	2,791.59	2,919.43
Georgia	1,420	1,845	2,459	4,600.80	5,414.01	5,542.70	5,598.41	5,730.02
Florida	402	446	518	2,489.52	3,148.60	3,100.65	3,234.15	3,255.71
Group IV, total	5,463	6,481	8,474	17,300.59	20,496.22	20,746.11	21,232.40	21,917.42
GULF AND MISSISSIPPI VALLEY:								
Alabama	743	1,157	1,843	3,422.20	3,806.75	3,906.24	4,051.18	4,197.22
Mississippi	862	990	1,127	2,470.85	2,645.08	2,691.38	2,787.63	2,934.27
Tennessee	1,253	1,492	1,843	2,767.38	3,106.82	3,069.35	3,131.42	3,184.91
Kentucky	534	1,017	1,530	2,942.38	3,086.09	3,086.46	3,083.38	3,093.75
Louisiana	335	450	652	1,739.85	2,370.71	2,519.44	2,664.06	2,801.27
Group V, total	3,727	5.106	6,995	13,342.66	15,015.45	15,272.87	15,717.67	16,211.42
SOUTHWESTERN:								
Missouri	817	2,000	3,965	6,142.02	6,695.41	6,810.65	6,881.15	6,887.44
Arkansas	38	256	859	2,203,44	2,630.82	2,823.29	3,088.27	3,108.56
Texas	307	711	3,244	8,709.85	9,564.63	9,657.93	9,722.46	9,991.62
Kansas	....	1,501	3,400	8,892.11	8,843.21	8,796.97	8,749.16	8,714.06
Colorado	....	157	1,750	4,291.11	4,575.86	4,608.85	4,616.51	4,649.63
New Mexico	....	....	758	1,388.77	1,502.07	1,612.94	1,778.00	1,779.06
Indian Country	......	....	289	1,260.65	1,202.03	1,263.60	1,339.45	1,487.60
Oklahoma					484.97	604.97	757.57	911.58
Group VI, total	1,162	4,625	14,085	32,887.95	35,499.00	36,179.20	36,926.57	37,529.55
NORTHWESTERN:								
Iowa	655	2,683	5,400	8,416.13	8,513.91	8,555.42	9,113.50	9,391.90
Minnesota	....	1,092	3,151	5,545.35	6,174.22	6,402.87	6,769.76	6,996.89
Nebraska	....	705	1,953	5,407.47	5,538.73	5,538.57	5,594.03	5,695.26
North Dakota	......	65	1,225	2,116.49	2,585.69	2,661.99	2,705.02	2,810.62
South Dakota				2,610.41	2,801.41	2,813.42	2,825.42	2,961.86
Wyoming	....	459	512	1,002.93	1,177.93	1,170.57	1,211.55	1,279.20
Montana	....	....	106	2,195.57	2,918.29	2,971.06	3,008.27	3,020.22
Group VII, total	655	5,004	12,347	27,294.36	29,710.18	30,113.90	31,227.55	32,164.95
PACIFIC:								
Washington	....	....	289	2,012.05	2,809.10	2,809.85	2,891.61	2,888.44
Oregon	....	159	508	1,439.97	1,551.27	1,615.88	1,631.88	1,670.90
California	23	925	2,195	4,349.73	5,198.71	5,292.02	5,455.42	5,588.56
Nevada	....	593	739	923.18	908.37	920.37	920.37	920.37
Idaho	....	....	206	946.11	1,108.69	1,118.89	1,271.34	1,319.41
Arizona	....	....	349	1,094.81	1,412.63	1,412.18	1,465.40	1,515.94
Utah	....	257	842	1,265.49	1,436.22	1,479.53	1,573.27	1,581.92
Group VIII, total	23	1,934	5,128	12,031.34	14,424.99	14,648.72	15,209.29	15,485.54

RECAPITULATION BY GROUPS OF STATES.

	1860.	1870.	1880.	1890.	1897.	1898.	1899.	1900.
New England	3,660	4,494	5,977	6,831.90	7,265.52	7,380.72	7,447.69	7,512.98
Middle Atlantic	6,353	10,577	15,147	20,038.11	22,068.93	22,034.43	22,206.55	22,360.85
Central Northern	9,583	14,701	25,109	36,976.45	40,157.01	40,476.10	40,849.86	41,138.38
South Atlantic	5,463	6,481	8,474	17,300.59	20,496.22	20,746.11	21,232.40	21,917.42
Gulf and Mississippi Valley	3,727	5,106	6,995	13,342.66	15,015.45	15,272.87	15,717.67	16,211.42
Southwestern	1,162	4,625	14,085	32,887.95	35,499.00	36,179.20	36,926.57	37,529.55
Northwestern	655	5,004	12,347	27,294.36	29,710.18	30,113.90	31,227.55	32,164.95
Pacific	23	1,934	5,128	12,031.34	14,424.99	14,648.72	15,209.29	15,485.54
United States	30,626	52,922	93,262	166,703.36	184,637.30	186,852.05	190,817.58	194,321.09

RAILWAY ACCIDENTS IN THE UNITED STATES FOR EIGHT YEARS.

[*Interstate Commerce Commission Report.*]

YEAR.	Passengers Carried.	Employes.		Passengers.		All Others.		Totals.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1893	....	2,727	31,729	299	3,229	4,320	5,435	7,346	40,393
1894	540,688,199	1,825	23,422	324	3,034	4,300	5,433	6,447	31,889
1895	507,421,362	1,811	25,696	170	2,375	4,155	5,677	6,136	33,748
1896	511,772,737	1,861	29,969	181	2,873	4,406	5,845	6,448	38,687
1897	489,445,198	1,693	27,667	222	2,795	4,522	6,269	6,437	36,731
1898	501,066,681	1,958	31,761	221	2,945	4,680	6,176	6,859	40,882
1899	523,176,508	2,210	34,923	239	3,442	4,674	6,255	7,123	44,620
1900	576,865,230	2,550	36,643	249	4,128	5,066	6,549	7,865	50,320

RAILROADS OF THE UNITED STATES—LENGTH, COST, DEBT.

[*From Poor's Railroad Manual.*]

YEARS.	Length of Lines. Miles.	COST OF CONSTRUCTION.				Total Cost of Construction per Mile.
		Capital Stock.	Funded Debt.	Floating Debt.	Total Liabilities.	
1873	70,278	$1,947,638,584	$1 836,904.450	....	$3,784,543,034	$53,851
1874	72,383	1,990,997.486	2,230,766,108	....	4,221,763,594	58,325
1875	74,096	2,207,564,835	2,208,066,845	....	4,415,631,630	59,593
1876	76,808	2,248,358,375	2,220,233,560	....	4,468,591,935	58,179
1877	79,208	2,313,278,598	2,255,318,650	$237,604,774	4,806,202,022	60,678
1878	80,832	2,292,257,877	2,297,790,916	182,248,556	4,772,297,349	59,040
1879	84,393	2,395,647.293	2,319,489,172	156,881.052	4,872,017,517	57,730
1880	92,147	2,708,673,375	2,530,874,943	162,489,939	5,402,038,257	58,624
1881	103,530	3,177,375,179	2,878,423,606	222,766,267	6,278,565,052	60,645
1882	114,428	3,478,914,224	3,214,084,323	267,650,730	6,960,649,277	60,830
1883	120,519	3,675,793,383	3,479,411.914	267,834,906	7,423,040,203	61,592
1884	125,119	3,726,655,041	3,647,312,772	244,018,597	7,617,986,410	60,886
1885	127,689	3,778,609,737	3,740,255,066	256,993,391	7,775,858,194	60,897
1886	133,565	3,956,377,498	3,853,748,330	279,142,613	8,089,268,441	60,564
1887	147,953	4,146,958,214	4,155,628,116	292,455,121	8,595,041,451	58,093
1888	154,222	4,392,287,224	4,585,471,523	304,155,858	9.281,914,605	60,185
1889	159,934	4,447,103 600	4,784,173,271	345,662,983	9,576,939,854	59,881
1890	163,359	4,590,471,560	5,055,225,025	375,228,630	10,020,925,215	61,343
1891	167,846	4,751,750.498	5,180,227,024	345,051,807	10,277,029,329	61,229
1892	171,805	4,863,119,073	5.406,955,004	285,212,887	10,555,286,964	61,496
1893	175,442	5,021,576,551	5,510,225,528	409,909,043	10,941,711,122	62,367
1894	178,054	5,027,604,717	5,605,775,764	382,927,834	11,016,308,315	61,871
1895	179,821	5,181,373,599	5,648,659,436	418,536,623	11,248,569,658	62,554
1896	181,394	5,373,187,619	5,461,856,798	344,499,969	11,179,544,386	61,631
1897	183,547	5,602,964,449	5,534,432,492	380,669,705	11,518,066,646	62,753
1898	184,894	5,581,522,858	5,635,363,594	368,182,584	11,585,069.036	62,658
1899	187,781	5,742,181,181	5,644,858,027	305,777,858	11,692,817,066	62,268
1900	192,162	5,804,346,250	5,758,592.754	328,963,335	11,891,902,339	61,885
1903	199,685	6,078,290,596	6,465,290,839	310,345,867	13,474,565,051	....

1904. Miles of track operated, 205,237.

RAILROADS OF THE UNITED STATES—GROSS AND NET EARNINGS.

YEARS.	GROSS TRAFFIC EARNINGS.				Percentage of Gross Traffic Earnings to Total Liabilities.	Net Traffic Earnings.
	From Passengers.	From Freight.	Miscellaneous.	Total Gross Receipts.		
1873	$137,384,427	$389,035,508	....	$526,419,935	....	$183.810,562
1874	140,999,081	379,466,935	....	520,466,016	....	189,570,958
1875	139,105,271	363,960,234	....	503,065,505	....	185,506,438
1876	136,120,583	361,137,376	....	497,257,959	....	186,452,752
1877	130,050,050	342,859,222	....	472,909,272	9.8	170,976,697
1878	124,637,290	365,466,061	....	490,103,351	10.3	187,575,167
1879	142,336,191	386,676,108	....	525,620,577	10.8	216,544,999
1880	147,653,003	467,748,928	....	613,733,610	11.4	255,557,555
1881	173,356,642	551,968,477	....	701,780,982	11.2	272,406,787
1882	196,213,220	506,367,247	$61,650,932	764,231,399	11.0	278,009,565
1883	206,837.256	549,756,695	60,782,625	817,376,576	11.0	295,737,078
1884	206,790,701	506,925,375	56,952,816	770,668,892	10.1	268,060,557
1885	200,883,911	519,690,992	44,735,616	765,493,309	9.8	266,615,933
1886	211,929,857	550,539,054	59,903,038	822,182,381	10.2	297,372,559
1887	240,542,876	636,666,223	54,176,055	931,373,488	10.8	331,174,183
1888	251,356,167	639,200,723	60,065,118	950,519,764	10.2	297,306,541
1889	259,439,231	665,962,331	66,644,757	991,935,331	10.4	317,866,883
1890	272,320,961	734,821,733	71,692,645	1,086,039,735	10.8	342,071,296
1891	290,799,696	754,185.910	80,549,209	1,125,381,994	11.0	350,748,483
1892	293,557,476	794,526,500	80.952,864	1,169,036,840	11.1	352,817,405
1893	310,442,870	808,494,668	88,168,488	1,207,106,026	11.0	358,648,918
1894	275,352,190	700,477,409	91,113,759	1,066,943,358	9.7	317,757,399
1895	260,929,741	743,784,451	87,681,245	1,092,395,437	9.7	323,196,454
1896	265,313,258	770,424,013	89,894,754	1,125,632,025	10.1	332,766,979
1897	253,557,936	780,351,939	98,956,751	1,132,866,626	9.8	342,792,030
1898	272,589,591	868,924,526	108,044,607	1,249,558,724	10.8	389,666,474
1899	297,559,712	922,436,314	116,100,353	1,336,096,379	11.4	447,741,014
1900	331,402,816	1,052,835,811	117,456,751	1,501,695,378	12.6	483,247,526
1903	396,513,412	1,197,212,452	127,089,036	1,720,814,900	....	560,026,277

FASTEST SHORT DISTANCE TRAINS OF THE WORLD.

ROUTE.	RAILWAYS.	From.	To.	Miles.	Time.	Stops.	Speed per Hour.
					H. M.		
Atlantic City Express....	Philadelphia and Reading..................	Camden....	Atlantic City	55½	50	......	66.6
Atlantic City Express	Pennsylvania..................	Camden....	Atlantic City	59	53	......	64.3

FASTEST LONG DISTANCE TRAINS OF THE WORLD.

ROUTE.	RAILWAYS.	From.	To.	Miles.	Time. H. M.	Stops.	Speed per Hour.
Independent Express	Orleans and Midi	Paris	Bayonne	486¼	8 59	6	54.13
Empire State Express	New York Central and Hudson River R. R.	New York	Buffalo	440	8 15	4	53.33
East Coast of England	Great Northern and Northeastern	London	Edinburgh	393½	7 45	3	50.77
West Coast of England	London and Northwestern and Caledonian	London	Glasgow	401½	8 00	3	50.18
Pennsylvania Special	Pennsylvania R. R.	New York	Chicago	912	20	6	46
Twentieth Century Limited	Lake Shore and New York Central	New York	Chicago	980	20	8	49

TELEGRAPH STATISTICS OF THE UNITED STATES.

These statistics are those furnished by the Western Union Telegraph Company, which practically controls the telegraph system of the country. They do not embrace some 210,000 miles of other wires operated by minor companies, nor the mileage of other wires operated independently by railroads, the Government and private parties.

YEAR	Miles of Line.	Miles of Wire.	Number of Offices.	Number of Messages Sent.	Receipts.	Expenses.	Profits.	AVERAGE PER MESSAGE. Toll.	AVERAGE PER MESSAGE. Cost.
								Cents	*Cents.*
1866	37,380	75,686	2,250	......	......	......	......	......	......
1867	46,270	85,291	2,565	5,879,282	$6,568,925	$3,944,006	$2,624,920	......	......
1868	50,183	97,594	3,219	6,404,595	7,004,560	4,362,849	2,641,711	104.7	63.4
1869	52,099	104,584	3,607	7,934,933	7,316,918	4,568,117	2,748,801	89.3	54.2
1870	54,109	112,191	3,972	9,157,646	7,138,738	4,910,772	2,227,966	75.5	51.2
1871	56,032	121,151	4,606	10,646,077	7,637,449	5,104,787	2,532,662	69.5	45.7
1872	62,033	137,190	5,237	12,444,499	8,457,096	5,666,863	2,790,233	66.2	43.8
1873	65,757	154,472	5,740	14,456,832	9,333,019	6,575,056	2,757,963	62.5	43.4
1874	71,585	175,735	6,188	16,329,256	9,262,654	6,755,734	2,506,920	54.9	39.5
1875	72,833	179,496	6,565	17,153,710	9,564,575	6,335,415	3,229,158	54.0	35.2
1876	73,532	183,832	7,072	18,729,507	10,034,984	6,635,474	3,399,510	50.9	33.5
1877	76,955	194,323	7,500	21,158,941	9,812,353	6,672,225	3,140,128	43.6	29.8
1878	81,002	206,202	8,014	23,918,894	9,861,355	6,309,813	3,551,543	38.9	25.0
1879	82,987	211,566	8,534	25,070,106	10,960,640	6,160,200	4,800,440	38.6	25.2
1880	85,645	233,534	9,077	29,215,509	12,782,895	6,948,957	5,833,938	38.5	25.4
1881	110,340	327,171	10,737	32,500,000	14,393,544	8,485,264	5,908,280	38.4	25.6
1882	131,060	374,368	12,068	38,842,247	17,114,166	9,996,096	7,118,070	38.2	25.8
1883	144,294	432,726	12,917	41,181,177	19,454,903	11,794,553	7,660,350	38.0	26.0
1884	145,037	450,571	13,761	42,076,226	19,632,940	13,022,504	6,610,436	36.5	25.2
1885	147,500	462,283	14,184	42,096,583	17,706,834	12,005,910	5,700,924	32.1	24.9
1886	151,832	489,607	15,142	43,289,807	16,298,639	12,378,783	3,919,855	31.3	23.4
1887	156,814	524,641	15,658	47,394,530	17,191,910	13,154,629	4,037,281	30.4	23.0
1888	171,375	616,248	17,241	51,463,955	19,711,164	14,640,592	5,070,572	31.2	23.2
1889	178,754	647,697	18,470	54,108,326	20,783,194	14,565,153	6,218,041	31.2	22.4
1890	183,917	678,997	19,382	55,878,762	22,387,029	15,074,304	7,312,725	32.4	22.7
1891	187,981	715,591	20,098	59,148,343	23,034,327	16,428,742	6,605,585	32.5	23.2
1892	189,576	739,105	20,700	62,387,298	23,706,405	16,307,857	7,398,548	31.6	22.3
1893	189,936	769,201	21,078	66,591,858	24,978,443	17,482,406	7,496,037	31.2	22.7
1894	190,303	790,792	21,166	58,632,237	21,852,655	16,060,170	5,792,485	30.5	23.3
1895	189,714	802,651	21,360	58,307,315	22,218,019	16,076,630	6,141,389	30.7	23.3
1896	189,918	826,929	21,725	58,760,444	22,612,736	16,714,756	5,897,980	30.9	24.0
1897	190,614	841,002	21,769	58,151,684	22,638,859	16,906,656	5,732,203	30.5	24.3
1898	189,847	874,420	22,210	62,173,749	23,915,733	17,825,582	6,090,151	30.1	24.7
1899	189,856	904,633	22,285	61,398,157	23,954,312	18,085,579	5,868,733	30.8	25.1
1900	192,705	933,153	22,900	63,167,783	24,758,570	18,593,206	6,165,364	30.8	25.1
1901	193,589	972,766	23,238	65,657,049	26,354,151	19,668,903	6,685,248	30.9	25.1
1902	196,115	1,029,984	23,567	69,374,882	28,073,095	20,766,766	7,292,326	31.0	26.7
1903	196,517	1,089,212	23,120	69,790,866	29,167,687	20,953,217	8,214,472		

1904. Miles of line. 199,350: miles of wire. 1.155,405.

TELEPHONE STATISTICS OF THE UNITED STATES.

These figures are those of the American Telephone and Telegraph Company, which, until the last few years, practically conducted the telephone business of the United States.

	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Exchanges	867	927	967	1,025	1,126	1,239	1,348
Branch offices	572	686	832	937	1,008	1,187	1,427
Miles of wire: On poles	232,008	260,324	286,632	327,315	396,503	509,036	627,897
On buildings	14,525	12,861	12,594	13,776	15,329	15,087	16,833
Underground	148,285	184,515	234,801	282,634	358,184	489,250	705,269
Submarine	1,856	2,028	2,818	2,675	2,973	3,404	4,203
Total miles of exchange service wire	396,674	459,728	536,845	626,400	772,989	1,016,777	1,354,202
Total circuits	212,074	237,837	264,645	295,904	338,293	422,620	508,262
Total employes	11,094	11,930	14,425	16,682	19,668	25,741	32,837
Total subscribers	243,432	281,695	325,244	384,230	465,180	632,946	800,880

In 1904 the Bell Telephone Co. operated 2,983,189 miles of wire, connecting 1,525,167 stations.

CANALS IN THE UNITED STATES.

CANALS.	Cost of Construction and Improvement	When Completed.	Length. Miles.	Number of Locks.	Navigable Depth. Feet.	Location.
Albemarle and Chesapeake	$1,641,363	1860	44	1	7½	Norfolk, Va., to Currituck Sound, N. C.
Augusta	1,500,000	1847	9	....	11	Savannah River, Ga., to Augusta, Ga.
Black River	3,581,954	1849	35	109	4	Rome, N. Y., to Lyons Falls, N. Y.
Cayuga and Seneca	2,232,632	1839	25	11	7	Montezuma, N. Y., to Cayuga and Seneca Lakes, N. Y.
Champlain	4,044,000	1822	81	32	6	Whitehall, N. Y., to West Troy, N. Y.
Chesapeake and Delaware	3,730,230	1829	14	3	9	Chesapeake City, Md., to Delaware City, Del.
Chesapeake and Ohio	11,290,327	1850	184	73	6	Cumberland, Md., to Washington, D. C.
Companys	90,000	1847	22	1	6	Mississippi River, La., to Bayou Black, La.
Delaware and Raritan	4,888,749	1838	66	14	7	New Brunswick, N. J., to Trenton, N. J.
Delaware Division	2,433,350	1830	60	33	6	Easton, Pa., to Bristol, Pa.
Des Moines Rapids	4,582,009	1877	7½	3	5	At Des Moines Rapids, Mississippi River.
Dismal Swamp	2,800,000	1822	22	7	6	Connects Chesapeake Bay with Albemarle Sound.
Erie	52,540,800	1826	387	72	7	Albany, N. Y., to Buffalo, N. Y.
Fairfield	....	......	4½	None.	....	Alligator River to Lake Mattimuskeet, N. C.
Galveston and Brazos	340,000	1851	38	....	3½	Galveston, Tex., to Brazos River, Tex.
Hocking	975,481	1843	42	26	4	Carroll, O., to Nelsonville, O.
Illinois and Michigan	7,357,787	1848	102	15	6	Chicago, Ill., to La Salle, Ill.
Illinois and Mississippi	568,643	1895	4½	3	7	Around lower rapids of Rock River, Ill.; connects with Mississippi River.
Lehigh Coal and Navigation Company	4,455,000	1821	108	57	6	Coalport, Pa., to Easton, Pa.
Louisville and Portland	5,578,631	1872	2½	2	....	At Falls of Ohio River, Louisville, Ky.
Miami and Erie	8,062,680	1835	274	93	5½	Cincinnati, O., to Toledo, O.
Morris	6,000,000	1836	103	33	5	Easton, Pa., to Jersey City, N. J.
Muscle Shoals and Elk River Shoals	3,156,919	1889	16	11	6	Big Muscle Shoals, Tenn., to Elk River Shoals, Tenn.
Newberne and Beaufort	....	......	3	None.	....	Clubfoot Creek to Harlow Creek, N. C.
Ogeechee	407,810	1840	16	5	3	Savannah River, Ga., to Ogeechee River, Ga.
Ohio	4,695,204	1835	317	150	4	Cleveland, O., to Portsmouth, O.
Oswego	5,239,526	1828	38	18	7	Oswego, N. Y., to Syracuse, N. Y.
Pennsylvania	7,731,750	1839	193	71	6	Columbia, Northumberland, Wilkesbarre, Huntingdon, Pa.
Portage Lake and Lake Superior	528,892	1873	25	None.	15	From Keweenaw Bay to Lake Superior.
Port Arthur	....	1899	7	....	26	Port Arthur, Tex., to Gulf of Mexico.
Santa Fe	70,000	1880	10	....	5	Waldo, Fla., to Melrose, Fla.
Sault Ste. Marie	4,000,000	1895	3	1	18	Connects Lakes Superior and Huron at St. Mary's River.
Schuylkill Navigation Company	12,461,600	1826	108	71	6¼	Mill Creek, Pa., to Philadelphia, Pa.
Sturgeon Bay and Lake Michigan	99,661	1881	1¼	None.	15	Between Green Bay and Lake Michigan.
St. Mary's Falls	7,909,667	1896	1⅓	1	21	Connects Lakes Superior and Huron at Sault Ste. Marie, Mich.
Susquehanna and Tidewater	4,931,345	1840	45	32	5½	Columbia, Pa., to Havre de Grace, Md.
Walhonding	607,269	1843	25	11	4	Rochester, O., to Roscoe, O.
Welland	23,796,353	......	26¾	55	14	Connects Lake Ontario and Lake Erie.

POST-OFFICES, ROUTES, REVENUE AND EXPENSES.

FISCAL YEARS.	Number of Post-Offices.	Extent of Post Routes in Miles.	Revenue of the Department.	Expenditure of the Department.	ACCOUNT PAID FOR	
					Salaries of Postmasters.	Transportation of the Mail.
1865	20,550	142,340	$14,556,159	$13,694,728	$3,383,382	$6,246,884
1870	28.492	231.232	19,772,221	23,998,837	4,673,466	10,884,653
1875	35,547	277,873	26,791,360	33,611,309	7,049,936	18,777,201
1876	36,383	281,798	27,895,908	33,263,488	7,397.397	18.361,048
1877	37,345	292.820	27,468,323	33,486,322	7,295,251	18.529,238
1878	39,258	301,966	29,277,517	34,165,084	7,977,852	19,262,421
1879	40,855	316,711	30,041,983	33,449,899	7,185,540	20,012,872
1880	42,989	343,888	33,315,479	36,542,804	7,701,418	22,255,984
1881	44,512	344,006	36,785,398	39,251,736	8,298,743	23,196,032
1882	46,231	343,618	41,876,410	40,039,635	8,964,677	22,846,112
1883	47,863	353,166	45,508,693	42,816,700	10,319,441	23,067,323
1884	50,017	359,530	43,338,127	46,404,960	11,283,831	25,359,816
1885	51,252	365,251	42,560,844	49,533,150	11,431,305	27,765,124
1886	53,614	366,667	43,948,423	50,839,435	11,348,178	27,553,239
1887	55,157	373,142	48,837,610	52,391,678	11,929,481	28,135,769
1888	57,281	403,977	52,695,176	55,795,358	12,600,186	29,151,168
1889	58,999	416,159	56,175,611	61,376,847	13,171,382	31,893,359
1890	62,401	427,991	60,882,097	65,930,717	13,753,096	33,885,978
1891	64,329	439,027	65,931,786	71,662,463	14,527,000	36,805,621
1892	67,119	447,591	70,930,475	76,323,762	15,249,565	38,837,236
1893	68,403	453,832	75,896,933	81,074,104	15,862,621	41,179,054
1894	69,805	454,746	75,080,479	84,324,414	15,899,709	45,375,359
1895	70,064	456,026	76,983.128	86,790,172	16,079,508	46,336,326
1896	70,360	463,313	82,499,208	90,626,296	16,576,674	47,993,067
1897	71,022	470,032	82,665,462	94,077,242	16,917,621	49,862,074
1898	73,570	480,462	89,012,618	98,033,523	17,460,621	51,780,283
1899	75,000	496,948	95,021,384	101,632,160	18,223,506	53,331,557
1900	76,688	500,982	102,354,579	107,740,268	19,112,097	55,772,881
1901	76,945	511,808	111,631,193	115,554,920	19,949,514	58,610,976
1902	76,215	507,540	121,848,047	124,785,697	20,789,919	60,533,217
1903	74,169	507,541	134,224.443	138,784,488	21,631,724	64,706,965
1904	71,131	406,818	143,582,624	152,362,117	22,273,344	69,200,197

UNITED STATES POSTAL SERVICE.

Total receipts	$111,631,193	Pieces of mail specially delivered	7,133,263
Total expenditures	$115,554,920	Cities having free delivery	866
Excess of expenditures	$3,923,720	Carriers employed	16,389
		People served by carriers	32,000,000
Pieces of mail handled—Letters	3,604,322,767	Rural free delivery routes (December 1, 1901)	6,009
Postal cards	659,614,800	Persons served on rural routes	4,000,000
Newspapers, etc.	2,206,791,539	Inland mail routes	35,316
Third and fourth class matter	953,661,223	Inland mail route mileage	511,808
		Star routes	22,797
Total pieces handled	7,424,390,329	Mileage of star routes	267,357
		Electric and cable car routes	326
Number of post offices	76,945	Railway mail routes	1,306
Special delivery messengers	2,583	Railway mail route mileage	182,154

MAIL DISTANCES AND TIMES FROM NEW YORK.

[*From Official Postal Guide.*]

CITIES.	Miles.	Days	Hours.	CITIES.	Miles.	Days.	Hours.
Adelaide, *via* San Francisco	12,845	34	......	Hot Springs, Ark.	1,367	......	55
Albany, N.Y.	142	......	4½	Indianapolis, Ind.	808	......	23
Alexandria, *via* London	6,150	13	......	Jacksonville, Fla.	1,077	......	32
Amsterdam, *via* London	3,985	9	......	Kansas City, Mo.	1,302	......	38¼
Antwerp, *via* London	4,000	9	......	Liverpool	3,540	8	......
Athens, *via* London	5,655	12	......	London, *via* Queenstown	3,740	8	......
Atlanta, Ga.	882	......	24¼	London, *via* Southampton	3,760	8	......
Bahia, Brazil	5,870	21	......	Louisville, Ky.	854	......	30
Baltimore, Md.	188	......	6	Madrid, *via* London	4,925	9	......
Bangkok, *via* San Francisco	12,990	43	......	Melbourne, *via* San Francisco	12,265	32	......
Batavia, Java, *via* London	12,800	34	......	Memphis, Tenn.	1,163	......	40
Berlin, *via* London	4,385	9	......	Mexico (by rail)	3,750	5	......
Bismark, N. Dak.	1,738	......	60½	Milwaukee, Wis.	985	......	30¼
Boise, Idaho	2,736	......	92½	Montpelier, Vt.	327	......	10¼
Bombay, *via* London	9,765	24	......	New Orleans, La.	1,344	......	40
Boston, Mass.	217	......	7	Omaha, Neb.	1,383	......	43
Bremen, *via* London	4,235	8	......	Panama	2,355	7	......
Buenos Ayres	8,045	29	......	Paris,	4,020	8	......
Buffalo, N. Y.	410	......	11½	Philadelphia, Pa.	90	......	3
Calcutta, *via* London	11,120	26	......	Pittsburg, Pa.	431	......	13
Cape May, N. J.	172	......	5½	Portland, Me.	325	......	12
Cape Town, *via* London	11,245	27	......	Portland, Ore.	3,181	......	114½
Carson City, Nev.	3,036	......	109¼	Prescott, Arizona	2,724	......	94
Charleston, S. C.	804	......	21¼	Providence, R. I.	189	......	6
Chattanooga, Tenn.	853	......	32	Richmond, Va.	344	......	11¼
Cheyenne, Wyo.	1,899	......	54	Rio de Janeiro	6,204	23	......
Chicago, Ill.	900	......	25	Rome, *via* London	5,030	9	......
Cincinnati, O.	744	......	23	Rotterdam, *via* London	3,935	9	......
Cleveland, O.	568	......	19½	St. Louis, Mo.	1,048	......	29
Columbus, O.	624	......	20	St. Paul, Minn.	1,300	......	37
Concord, N. H.	292	......	9½	St. Petersburg, *via* London	5,370	10	......
Constantinople, *via* London	5,810	11	......	Salt Lake City, Utah	2,452	......	71½
Deadwood, S. Dak.	1,957	......	65½	San Francisco, Cal.	3,250	......	112½
Denver, Col.	1,930	......	60½	Santa Fe, N. Mex.	2,173	......	82
Des Moines, Iowa	1,257	......	37½	Savannah, Ga.	905	......	26
Detroit, Mich.	743	......	25	Shanghai, *via* San Francisco	9,920	25	......
Florence, *via* London	4,800	10	......	Stockholm, *via* London	4,975	10	......
Galveston, Tex.	1,789	......	56½	Sidney, *via* San Francisco	11,570	31	......
Glasgow	3,375	10	......	Tacoma, Wash.	3,209	......	127
Gustown, *via* New Orleans	2,810	7	......	Topeka, Kan.	1,370	......	48
Halifax, N. S.	645	2	......	Trenton, N. J.	57	......	2
Hamburg, *via* London	4,340	9	......	Valparaiso, *via* Panama	5,910	37	......
Hamburg, direct	4,820	9	......	Vicksburg, Miss.	1,288	......	50
Harrisburg, Pa.	182	......	6	Vienna, *via* London	4,740	10	......
Hartford, Conn.	112	......	4	Vinita, Ind. T.	1,412	......	42
Havana, Cuba	1,413	3	......	Washington, D. C.	228	......	6½
Helena, Mont.	2,423	......	89	Wheeling, W. Va.	496	......	14¼
Hong Kong, *via* San Francisco	10,590	25	......	Wilmington, Del.	117	......	5
Honolulu, *via* San Francisco	5,645	13	......	Wilmington, N. C.	593	......	20

COMMUNICATION BY WATER.

CANAL SYSTEM.—Prior to the railway era in the United States, the country entered upon an extensive system of communication by means of artificial waterways. These answered an excellent purpose in their day, and proved to be not only a source of development but of profit. The most gigantic of the canal undertakings was the Erie Canal, connecting the Lakes with the Hudson. It is 387 miles in length and was constructed at a cost of some $53,000,000, an enormous sum for the time. The other canals entering into and completing the canal system of the country have been mentioned elsewhere in these pages. The decline of the canal system has been more rapid in some sections than others, many lines of water communication, as those in Pennsylvania, having gone out of existence almost entirely, while it is the boast of the Sault Ste. Marie Canal, connecting Lakes Superior and Huron, that its annual commerce exceeds in value that which passes through the Suez Canal.

River Communication.—But it is in its natural water communication that the United States exceeds all other countries in extent and commercial convenience. This is due to its configuration, *i. e.*, the arrangement of its mountains, valleys, highland and lowlands, all of which control not only the size and direction of its rivers, but their navigability, or uses as a means of commercial communication. Climate and temperature, too, both dependent, more or less, on configuration, help to determine the extent and availability of our magnificent water system, for upon them depend the extent of rainfall. The splendid means of water communication afforded by the numerous and navigable streams of the Mississippi Valley—the Missouri sweeping into the Northwest and fed by mountain snows, the Mississippi to the north bearing the waters of its innumerable spring lakes, the Ohio coursing the great valley transversely, the Tennessee, the Cumberland, the Wabash, the Arkansas to the west—all these, with their immense lengths and volumes afford a convenience and extent of communication with which that of Brazil and Argentina does not, as yet, begin to compare. The river systems of Europe, Asia and Africa all have their limitations as to availability of communication, either in their direction or extent. What tidal river bears so voluminous and convenient a flood as the Hudson, as it pierces, in spite of an apparently insurmountable topography, almost to the lake system of the North? The rivers of the lowlands of the Mexican Gulf, almost without exception, afford navigable inlets and outlets for the products peculiar to the immense sections they water. The mountain-fed Pacific rivers, with such exceptions as the Columbia, are more tumultuous than those east of the Rockies, yet not without a place in the communicable value of our magnificent water system.

Lake Communication.—Again, and as already stated in these pages, the fresh-water lake system of the United States surpasses all others of the world in extent and convenience of communication. It borders, or lies within, our domain for thousands of miles, giving commercial access to numerous large and countless small cities, opening to the world the resources of the richest agricultural region of the globe, and tapping all that immense wealth of copper and iron which lies embedded along their romantic shores. Lake communication, whether passenger or freight, now rivals in extent, velocity and magnificence of appointment, that of the domestic ocean coast, and it is continually adding to its facilities and importance.

Passports for Travel.

What is a Passport?—A passport is a written permit for a citizen of this country to travel unmolested abroad, and a recommendation of him to the foreign governments he may wish to visit.

Who May Issue?—In the United States passports are issued only by the Secretary of State. Abroad, they are issued by the diplomatic representative of the United States, consul-general, or consul, of the United States in the country where the citizen of the United States, who is applicant, happens to be.

To Whom Granted.—Passports are granted only to full citizens of the United States. If a naturalized citizen, the application must be accompanied with the certificate of naturalization. When an applicant is about to travel abroad with his wife, children and servants, he may, by setting forth the ages and descriptions of all, make one passport for all do.

Application.—The application must be in writing in the form of an affidavit, and attested by an officer who has power to administer oaths, with his seal, if he have one; if not, then he must authenticate his official character before a proper officer. If the applicant makes his mark, it must be attested by two witnesses. Every application must be accompanied by the certificate of at least one witness that the applicant is the person he represents himself to be and that his statement of facts is true. The applicant must take the oath of allegiance to the United States, and must state the date and place of his birth, occupation, permanent residence, and declare that he goes abroad with the intention of returning and resuming his citizenship. His application must also be accompanied by a full description of his person—age, stature, height, shape of head, color of eyes, shape of nose, mouth, chin, color of hair and complexion, shape of face, etc. Professional titles will not be inserted in a passport.

Blanks and Fees.—The State Department will furnish blank forms of application to those who request them, upon their stating whether they are native or naturalized citizens, or claim through the naturalization of parents. The fee for granting a passport is one dollar, which should accompany the application. Drafts or checks are not received.

Expiration.—A passport expires at the end of two years from its date, but new ones will be issued upon new applications.

FORM OF PASSPORT.

No. 48,976.

United States of America, Department of State.

To all to whom these presents shall come, Greeting:

The undersigned, Secretary of State of the United States of America, hereby requests all whom it may concern to permit James Martin Dexter, a citizen of the United States, safely and freely to pass, and in case of need, to give him all lawful aid and protection.

Given under my hand and the seal of the Department of State, at the city of Washington, the twentieth day of July, 1902, and of the Independence of the United States, the one hundred and twenty-seventh.

[Department Seal.] John Hay, *Secretary.*

Description.

Age, 48 years.
Stature, 5 ft. 9 in. high.
Forehead, low.
Eyes, blue.
Nose, prominent.
Mouth, large.
Chin, long.
Hair, dark.
Complexion, ruddy.
Face, elongated.
[Signature of bearer.] James Martin Dexter.

Agriculture in the United States.

FARMS IN UNITED STATES CLASSIFIED BY ACREAGE.

[*From Twelfth* (1900) *Census.*]

Farms Classified by Acreage.	Total Acres.	Improved.	Per Cent Improved.	Average Acreage.	
				All Land.	Improved Land.
Under three acres	79,508	69,590	87.5	1.9	1.7
Three and under ten acres	1,402,391	1,266,671	90.3	6.2	5.6
Ten and under twenty acres	5,708,458	5,112,046	89.6	14.0	12.6
Twenty and under fifty acres	41,544,644	33,006,401	79.4	33.0	26.2
Fifty and under one hundred acres	98,600,285	67,348,377	68.3	72.2	49.3
One hundred and under one hundred and seventy-five acres	192,688,074	118,393,656	61.4	135.5	83.2
One hundred and seventy-five and under two hundred and sixty acres	103,289,564	63,203,138	61.2	210.8	129.0
Two hundred and sixty and under five hundred acres	129,686,228	72,331,457	55.8	343.1	191.4
Five hundred and under one thousand acres	67,878,349	29,478,047	43.4	661.9	287.5
One thousand acres and over	200,324,045	24,583,808	12.3	4,237.3	520.0
Totals	841,201,546	414,793,191	49.3	146.6	72.3

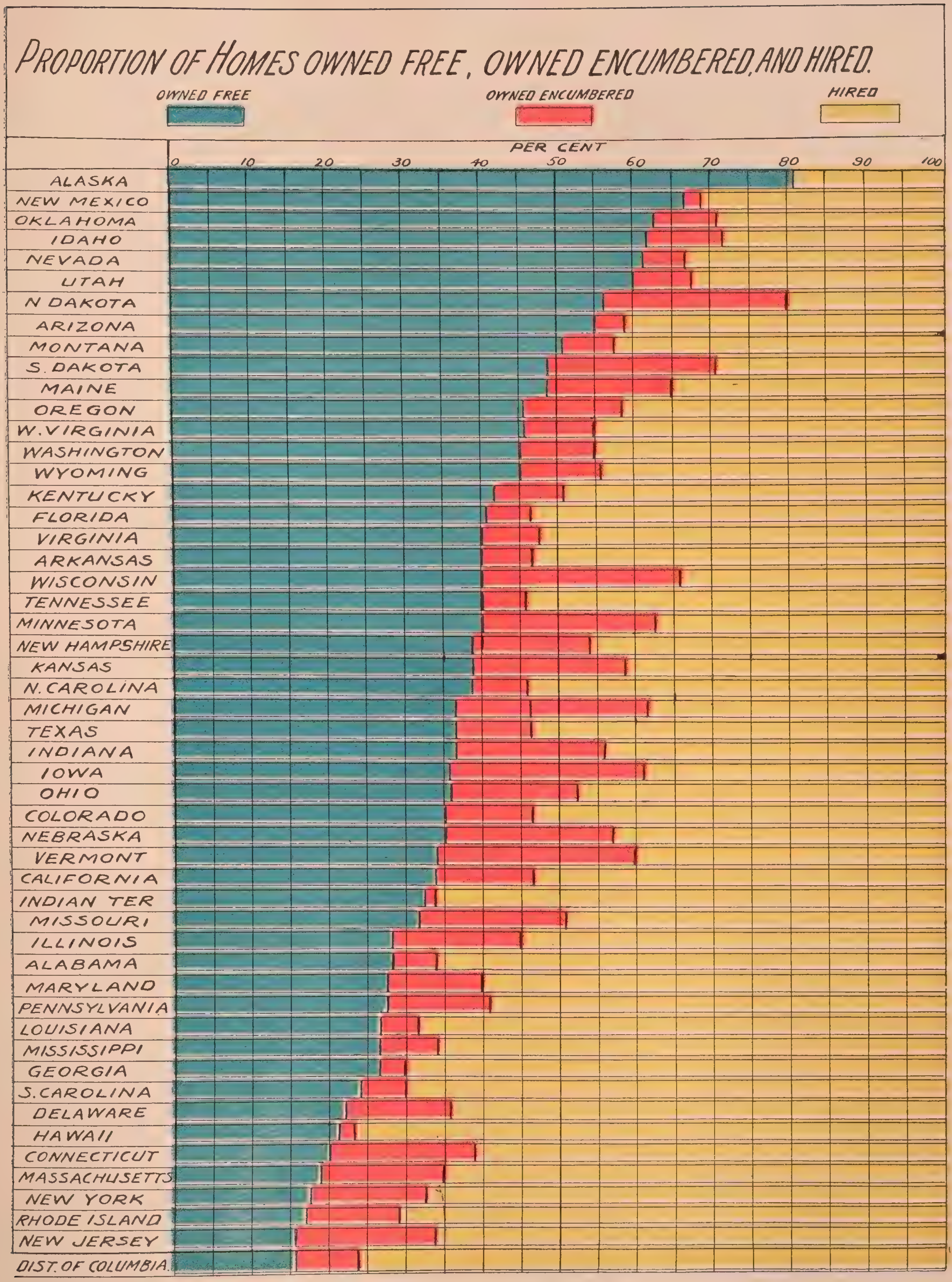
FARMS IN UNITED STATES CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

[*From Twelfth* (1900) *Census.*]

Classification by Principal Sources of Income.	Total Acres.	Improved.	Per Cent Improved.	Average Acreage.	
				All Land.	Improved Land.
Hay and grain	210,742,783	146,588,747	69.7	159.3	111.1
Vegetables	10,156,679	5,274,218	51.9	65.1	33.8
Fruits	6,149,584	3,417,074	55.6	74.8	41.6
Live stock	355,009,476	134,748,135	38.0	226.9	86.1
Dairy produce	43,283,971	22,616,227	52.3	121.0	63.2
Tobacco	9,574,160	5,628,277	58.8	90.1	53.0
Cotton	89,586,680	45,580,533	50.9	83.6	42.5
Rice	1,087,668	462,676	42.5	190.3	80.9
Sugar	2,668,880	1,032,117	38.7	363.4	140.5
Flowers and plants	42,662	34,704	81.3	6.9	5.6
Nursery products	165,780	137,439	82.9	81.7	67.7
Taro	18,922	2,980	15.7	42.9	6.8
Coffee	70,218	14,123	20.1	137.1	27.6
Miscellaneous	113,144,083	49,255,921	43.5	106.8	46.5
Totals	841,201,546	414,793,191	49.3	146.6	72.3

PRICES OF FARM IMPLEMENTS FOR THREE CENSUS YEARS.

Implements.	1880.	1890.	1900.	Implements.	1880.	1890.	1900.
Churns	$7.30	$7.30	$5.35	Plows, shovel	$4.00	$3.00	$2.50
Corn drills	12.00	11.00	8.00	Plows, walking, steel	15.00	12.00	10.67
Corn planters, hand	1.25	1.00	1.00	Potato diggers	20.00	15.00	10.00
Cultivators, walking, two-horse	20.00	16.00	13.00	Potato hillers	12.00	10.00	8.00
Fanning mills	35.00	30.00	20.00	Pumps, wooden	8.00	7.00	4.00
Feed cutters, hay and ensilage	60.00	55.00	50.00	Rakes, sulky	25.00	20.00	14.00
Grain drills	50.00	40.00	30.00	Seeders, two-horse	35.00	30.00	25.00
Harrows	15.00	12.00	10.00	Scythes	.80	.75	.60
Harrows, spring tooth	20.00	12.00	10.00	Shellers, corn	6.00	3.50	2.40
Harvesters, combined	110.00	80.00	65.00	Sleighs	25.00	20.00	18.00
Harvesters, twine-binders	325.00	140.00	120.00	Stackers, hay	55.00	55.00	40.00
Hay carriers	10.00	7.50	3.50	Wagons, farm	90.00	52.00	57.00
Horse hay forks	3.50	1.50	1.00	Windmills, steel	....	50.00	25.00
Mowers	65.00	60.00	40.00	Wire fencing, per mile	....	320.00	176.00
Plows, gang	60.00	55.00	48.00				



PROPORTION OF HOMES OWNED FREE, OWNED ENCUMBERED, AND HIRED.

NUMBER OF FARMS AND ACRES, VALUES OF FARMS AND PRODUCTS, NUMBER ENGAGED IN AGRICULTURE.

[*From Twelfth* (1900) *Census.*]

	Number of Farms.	Average Area in Acres.	Total Acres in Farms.	Value of Farm Improvements, Implements, and Live Stock.	Average Value per Acre.	Value of Farm Products for 1899.	Number of Males and Females over Ten Years of Age Engaged in Agricultural Pursuits.
Alabama	223,220	92.7	20,685,427	$179,399,882	$8.67	$91,387,409	515,737
Alaska	12	13.2	159	15,686	98.65	8,048	367
Arizona	5,809	333.2	1,935,327	29,993,847	15.50	6,997,097	16,174
Arkansas	178,694	93.1	16,636,719	181,416,001	10.90	79,649,490	345,479
California	72,542	397.4	28,828,951	796,527,955	27.63	131,690,606	152,371
Colorado	24,700	383.6	9,474,588	161,045,101	17.00	33,048,576	44,904
Connecticut	26,948	85.8	2,312,183	113,305,580	49.01	28,276,948	44,796
Delaware	9,687	110.1	1,066,228	40,697,654	38.17	9,290,777	19,002
District of Columbia	269	31.6	8,489	11,535,376	1,358.86	870,247	1,488
Florida	40,814	106.9	4,363,891	53,929,064	12.36	18,309,104	88,688
Georgia	224,691	117.5	26,392,057	228,374,637	8.65	104,304,476	522,848
Hawaii	2,273	1,148.1	2,609,613	74,084,988	28.39	22,040,731	56,056
Idaho	17,471	183.4	3,204,903	67,271,202	20.99	18,051,625	27,489
Illinois	264,151	124.2	32,794,728	2,004,316,897	61.12	345,649,611	462,781
Indiana	221,897	97.4	21,619,623	978,616,471	45.27	204,450,196	342,733
Indian Territory	45,505	159.7	7,269,081	92,181,615	12.68	27,672,002	92,418
Iowa	228,622	151.2	34,574,337	1,834,345,546	53.06	365,411,528	371,604
Kansas	173,098	240.7	41,662,970	864,100,286	20.74	209,895,542	271,252
Kentucky	234,667	93.7	21,979,422	471,045,856	21.43	123,266,785	408,185
Louisiana	115,669	95.4	11,059,127	198,536,906	17.95	72,667,302	295,445
Maine	59,299	106.2	6,299,946	122,410,904	19.43	37,113,469	76,923
Maryland	46,012	112.4	5,170,075	204,645,407	39.58	43,823,419	95,554
Massachusetts	37,715	83.4	3,147,064	182,646,704	58.04	42,298,274	66,551
Michigan	203,261	86.4	17,561,698	690,355,734	39.31	146,547,681	312,462
Minnesota	154,659	169.7	26,248,498	788,684,642	30.05	161,217,304	258,944
Mississippi	220,803	82.6	18,240,736	204,221,027	11.20	102,492,283	490,582
Missouri	284,886	119.3	33,997,873	1,033,121,897	30.39	219,296,970	463,293
Montana	13,370	885.9	11,844,454	117,859,823	9.95	28,616,957	28,693
Nebraska	121,525	246.1	29,911,779	747,950,057	25.01	162,696,386	186,587
Nevada	2,184	1,174.7	2,565,647	28,673,835	11.18	6,758,337	5,890
New Hampshire	29,324	123.1	3,609,864	85,842,096	23.78	21,929,988	38,782
New Jersey	34,650	82.0	2,840,966	189,533,660	66.71	43,657,529	68,881
New Mexico	12,311	416.8	5,130,878	53,767,824	10.48	10,155,215	27,214
New York	226,720	99.9	22,648,109	1,069,723,895	47.23	245,270,600	375,990
North Carolina	224,637	101.3	22,749,356	233,834,693	10.28	89,309,638	459,306
North Dakota	45,332	342.9	15,542,640	255,266,751	16.42	64,252,494	71,626
Ohio	276,719	88.5	24,501,985	1,198,923,946	48.93	257,065,826	414,662
Oklahoma	62,495	251.5	15,719,258	185,343,818	11.79	45,447,744	94,931
Oregon	35,837	281.0	10,071,328	172,761,287	17.15	38,090,969	58,490
Pennsylvania	224,248	86.4	19,371,015	1,051,629,173	54.29	207,895,600	341,712
Rhode Island	5,498	82.9	455,602	26,989,189	59.24	6,333,864	10,957
South Carolina	155,355	90.0	13,985,014	153,591,159	10.98	68,266,912	393,693
South Dakota	52,622	362.4	19,070,616	297,525,302	15.60	66,082,419	82,857
Tennessee	224,623	90.6	20,342,058	341,202,025	16.77	106,166,440	413,406
Texas	352,190	357.2	125,807,017	962,476,273	7.65	239,823,244	644,634
Utah	19,387	212.4	4,116,951	75,175,141	18.26	16,502,051	29,414
Vermont	33,104	142.7	4,724,440	108,451,427	22.96	33,570,892	49,820
Virginia	167,886	118.6	19,907,883	323,515,977	16.25	86,548,545	300,268
Washington	33,202	256.0	8,499,297	144,040,547	16.95	34,827,495	61,113
West Virginia	92,874	114.7	10,654,513	203,907,349	19.14	44,768,979	151,722
Wisconsin	109,795	117.0	19,862,727	811,712,319	40.87	157,445,713	270,007
Wyoming	6,095	1,333.0	8,124,536	67,477,407	8.31	11,907,415	13,407
Totals	5,739,657	146.6	841,201,546	$20,514,001,838	$24.39	$4,739,118,752	10,438,188

VALUE OF FARM PROPERTY, INCLUDING LAND WITH IMPROVEMENTS, IMPLEMENTS, MACHINERY AND LIVE STOCK.

STATES AND TERRITORIES.	TOTAL VALUE.						
	1900.	1890.	1880.	1870.[1]	1870.[2]	1860.	1850.
Alabama	$179,399,882	$146,339,765	$106,531,307	$97,716,055	$78,172,844	$226,669,511	$91,138,999
Alaska	15,686	......	......	......	......	......	......
Arizona	29,993,847	20,646,263	4,427,746	325,441	260,353	......	......
Arkansas	180,416,001	155,019,702	99,359,577	59,489,613	47,591,690	117,922,076	23,514,510
California	796,527,955	777,381,767	311,997,443	184,521,470	184,521,470	86,870,327	7,328,582
Colorado	161,045,101	117,439,558	41,991,650	6,529,454	5,223,563	......	......
Connecticut	113,305,580	108,050,708	135,185,834	145,033,019	116,026,415	104,480,565	82,086,453
Delaware	40,697,654	45,620,460	41,714,319	52,171,837	41,737,470	35,388,946	21,239,591
Dist. of Columbia	11,535,376	6,680,000	3,792,501	3,954,596	3,163,677	3,153,315	1,842,323
Florida	53,929,064	81,046,200	27,902,481	15,665,151	12,532,121	22,889,752	9,861,962
Georgia	228,374,637	189,249,198	143,158,308	129,330,486	103,464,389	202,289,924	127,376,011
Hawaii	74,084,988	......	......	......	......	......	......
Idaho	67,271,202	25,857,530	7,220,620	1,072,735	858,188	......	......
Illinois	2,004,316,897	1,477,759,187	1,175,772, 93	1,104,839,631	883,871,705	498,680,730	126,748,109
Indiana	978,616,471	869,322,787	726,781,857	736,257,562	589,006,050	409,025,611	165,568,172
Indian Territory	92,181,615	5,976,729	10,499,000	......	......	......	......
Iowa	1,834,345,546	1,100,682,579	721,517,214	496,159,156	396,927,325	147,702,873	21,519,711
Kansas	864,100,286	706,664,141	313,535,933	117,553,537	94,042,830	16,318,383	......
Kentucky	471,045,856	428,170,266	358,703,832	386,099,155	308,879,323	360,839,765	189,851,735
Louisiana	198,536,906	110,447,005	76,770,547	91,033,942	73,043,154	247,984,827	98,543,611
Maine	122,410,904	122,347,283	123,805,039	131,128,193	104,902,555	97,424,385	66,852,031
Maryland	204,645,407	200,792,960	187,157,266	194,072,058	155,257,646	164,652,059	97,639,622
Massachusetts	182,646,704	147,677,402	164,288,956	138,482,891	110,786,313	139,888,690	121,933,641
Michigan	690,355,734	647,938,255	574,242,654	461,762,426	369,409,941	190,371,098	62,772,551
Minnesota	788,684,642	414,701,626	238,718,864	124,687,403	99,749,922	32,166,946	270,788
Mississippi	204,221,027	167,328,457	122,016,268	116,113,447	92,890,758	241,478,571	79,905,223
Missouri	1,033,121,897	786,390,253	489,521,663	492,789,746	394,231,797	293,037,307	87,094,648
Montana	117,859,823	60,135,102	12,806,243	2,693,324	2,154,659	......	......
Nebraska	747,950,057	511,799,810	154,103,723	38,343,087	30,674,470	5,212,761	......
Nevada	28,673,835	18,678,710	10,020,862	3,094,672	3,094,672	491,059	......
New Hampshire	85,842,096	80,207,575	88,715,693	99,295,801	79,436,641	83,297,400	66,432,023
New Jersey	189,533,660	182,452,914	212,678,330	286,854,830	229,483,864	202,131,598	135,342,305
New Mexico	53,767,824	33,543,141	16,684,361	4,770,410	3,816,328	7,400,049	3,226,511
New York	1,069,723,895	1,139,310,716	1,216,637,765	1,494,738,190	1,195,790,552	936,366,584	650,202,067
North Carolina	233,834,693	216,707,500	164,286,737	104,287,161	83,429,729	180,305,812	89,540,945
North Dakota	255,266,751	100,745,779	32,346,449	3,007,829	2,406,263	151,135	......
Ohio	1,198,923,946	1,195,688,864	1,261,726,263	1,200,458,541	960,366,833	776,056,642	415,630,929
Oklahoma	185,343,818	12,221,020	876,000	......	......	......	......
Oregon	172,761,287	143,024,800	76,975,140	30,475,381	30,475,381	22,099,161	4,908,782
Pennsylvania	1,051,629,173	1,062,939,846	1,095,405,324	1,194,786,853	955,829,482	754,166,275	464,098,693
Rhode Island	26,989,189	25,179,479	29,039,046	25,496,346	20,397,077	22,179,388	19,100,640
South Carolina	153,591,159	119,849,272	84,079,702	59,535,219	47,628,175	169,738,630	101,628,053
South Dakota	297,525,302	145,527,556	......	......	......	......	......
Tennessee	341,202,025	312,891,650	259,456,170	282,027,309	25,621,847	340,036,202	133,189,438
Texas	962,476,273	552,127,104	256,084,364	100,971,937	80,777,550	137,186,219	29,114,639
Utah	75,175,141	39,482,206	19,333,569	4,739,126	3,791.301	3,092,951	943,055
Vermont	108,451,427	101,805,370	130,811,490	168,506,189	134,804,951	114,196,989	78,749,737
Virginia	323,515,977	294,488,569	247,476,536	246,132,550	196,906,040	428,957,006	257,079,974
Washington	144,040,547	100,724,970	20,777,044	6,362,235	6,362,235	3,508,155	......
West Virginia	203,907,349	178,961,330	153,588,725	120,892,738	96,714,190	......	......
Wisconsin	811,712,319	560,475,894	419,865,346	359,964,310	287,971,447	154,683,386	35,067,516
Wyoming	67,477,407	33,768,431	10,113,484	465,705	372,563	......	......
Total for United States	$20,514,001,838	$16,082,267,689	$12,180,501,538	$11,124,958,747	$8,944,857,749	$7,980,493,063	$3,967,343,580

[1] Currency values as reported by enumerators.
[2] Values in gold, one-fifth less than currency values.

NUMBER AND VALUE OF DOMESTIC ANIMALS BY STATES.

[*Twelfth Census* (1900) *Returns.*]

	NEAT CATTLE.		HORSES.		MULES.		ASSES AND BURROS.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Alabama	779,734	$9,793,556	152,643	$7,906,121	192,070	$13,104,642	1,819	$134,826
Arizona	742,635	11.367,466	125.063	1,701,905	4,077	123,539	4,625	32,162
Arkansas	894,535	11,885,627	253,590	10,164,495	175,001	9,989,704	2,479	222,185
California	1,444,624	32,655,146	421,293	17,844,993	84.773	4.610.909	2,227	146,697
Colorado	1,433,318	35,532,738	236,546	7,308,726	6,784	325,547	5,513	52,010
Connecticut	217,058	5.944.265	52.576	3.813,632	278	22,735	24	780

NUMBER AND VALUE OF DOMESTIC ANIMALS BY STATES—(Continued).

	Neat Cattle.		Horses.		Mules.		Asses and Burros.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Delaware	54.180	$1,340,885	29,722	$1,767,625	4,745	$345,401	15	$845
District of Columbia	1.462	54,471	854	57,362	81	6,050	....	....
Florida	751,261	6,344,349	42,811	2,290,139	13,664	1,074,972	98	3,445
Georgia	899,491	8,828,498	127,407	7,092,228	207,321	14,454,822	519	45,850
Hawaii	102,908	1,293,766	12,982	441,661	6,506	590,507	1,438	13,355
Idaho	363,534	8,389,954	170,120	4,123,343	1,793	70,542	362	10,733
Illinois	3,104,010	82,170,907	1,350,219	69,698,100	124,644	7,420,511	2,529	223,147
Indiana	1,684.478	40.964.524	751.715	40.641,988	66,717	3,717,083	1,008	116,144
Indian Territory	1,499,364	29,638,671	217,699	6,223,718	56,858	2,878,825	1,262	117,940
Iowa	5,367,630	142,518,902	1,392,573	77,720,577	55,747	3,586,761	1,832	150,768
Kansas	4,491,078	117,640,801	979,695	43,758,334	118,704	6,507,916	3,787	428,176
Kentucky	1,083,248	24,987,741	451,697	24,548,542	190,665	11,105,553	5,259	459,210
Louisiana	670,295	8,580,996	194,372	6,624,617	143,970	10,636,982	683	51,685
Maine	338,847	7,585,545	106,299	7,058,989	353	19,530	48	769
Maryland	292,646	6,853,121	148,994	9,352,694	17,511	1,394,522	69	6,810
Massachusetts	285,944	8,130,917	75,034	5,826,457	298	20,685	51	1,709
Michigan	1,376,408	28,165,256	586,559	35,908,557	2,916	158,475	95	3,193
Minnesota	1,871,525	36,248,958	669,469	42,255,044	8,339	486,580	161	11,475
Mississippi	873,356	12,070,921	229,311	10,882,851	214,259	14,128,807	1,773	216,609
Missouri	2,978,589	75,656,807	967,037	42,094,814	283,519	15,482,282	8,777	1,111,893
Montana	968,387	25,362,016	329,972	7,788,672	2,729	102,741	128	16,008
Nebraska	3,176,243	82,469,498	795,318	36,663,359	55,124	3,171,460	732	116,756
Nevada	385,192	8,273,260	80,295	1,272,336	2,792	85,601	256	28,886
New Hampshire	226,792	5,546,630	54,866	3,840,670	97	6.072	27	1,565
New Jersey	239,984	7,199,107	94,024	7,582,274	4,888	354,037	43	2,455
New Mexico	991,859	17,977,931	131,153	2,220,469	5,311	183,132	15,902	64,528
New York	2,596,389	62,735,174	628,438	47,977,931	3,313	229,172	338	8,109
North Carolina	624,518	7,667,950	159,153	8,795,611	135,610	8,677,298	825	69,460
North Dakota	657,434	15,810,637	359,948	22,728,511	6,880	476,366	96	13,231
Ohio	2,053,313	46,560,246	878,205	50,159,245	16,771	941,211	250	18,981
Oklahoma	1,709,752	37,783,115	303,631	10,615,294	55,677	2,228,630	1,521	124,171
Oregon	700,300	15,164,897	287,932	8,651,060	7,446	318,249	305	42,423
Pennsylvania	1,896,847	43,063,191	590,981	40,948,827	38,059	2,907,690	576	22,559
Rhode Island	36,034	1,165,797	11,390	980,948	38	2,835	5	210
South Carolina	342,898	4,334,714	78,419	4,846.903	117.369	8,415,523	247	22,353
South Dakota	1.546,800	37,847,933	480,768	20,085.687	6,804	345,609	195	19,021
Tennessee	912,183	15,401,051	352,388	19,681,517	253,657	16,200,550	8,852	703,702
Texas	9,428,196	163,228,904	1.269.432	34.497.083	507,281	25,121,619	16,409	868,747
Utah	343,690	7,152,844	115,884	3,396,313	2,116	58.850	888	15,555
Vermont	501.940	10.528.795	85.531	5.319.597	331	21,847	25	915
Virginia	825,512	16,838,847	298.522	15,326,404	47,474	2,941,765	412	52,231
Washington	394,923	9,440,038	243,985	8,550,434	2,690	138,185	160	16,481
West Virginia	639,782	14,058,427	185,188	10,376,550	11,354	725,134	116	15,234
Wisconsin	2,314,105	46,849,418	555,756	34,316,475	4,490	243,493	428	8,505
Wyoming	687,284	19,393,191	135.543	3,225,196	1,227	51,609	414	10,037
Totals	67,822,336	$1,476,499,714	18,280,007	$896,955,343	3,271.121	$196,812,560	95,603	$5,824,539

	Sheep.		Swine.		Goats.	
	Number.	Value.	Number.	Value.	Number.	Value.
Alabama	317,053	$488,299	1,423,329	$2,887,230	117,413	$94,258
Arizona	924,761	1,901,764	18,103	80,587	98,403	167,863
Arkansas	256,929	437,317	1,713,307	2,981,309	51,839	58,788
California	2,563,353	7,003,231	598,336	2,476,781	109,021	262,981
Colorado	2,044,814	5,584,897	101,198	482,722	37,433	73,141
Connecticut	36,987	137,420	46,447	326,857	313	1,945
Delaware	11,765	43,588	46,732	234,472	143	519
District of Columbia	....	....	802	4,097	9	39
Florida	124,520	239,261	464,277	702,827	43,705	32,639
Georgia	336,278	438,363	1,424,298	2,577,950	84,624	61,972
Hawaii	102,098	133,883	8,057	49,576	653	731
Idaho	3,121,532	8,294,776	114,080	480,338	4,481	20,167
Illinois	1,030,581	3,706,642	5,915,468	23,616,781	8,877	19,932
Indiana	1,742,002	5,794,976	3,763,389	13,804,893	4,484	8,920
Indian Territory	17,005	37,994	650,255	1,906,200	10,529	21,538
Iowa	1,056,718	3,956,142	9,723,791	43,764,176	41,468	146,708
Kansas	262,013	833,827	3,594,859	17,076,904	18,288	71,290
Kentucky	1,297,343	4,191,205	1,954,537	5,176,183	11,967	19,753
Louisiana	219,844	333,040	788,425	1,494,284	38,308	35,697
Maine	420,116	1,116,483	79,018	516,015	279	1,091
Maryland	191,101	696,531	317,902	1,329,143	1,179	4,023
Massachusetts	52,559	193,596	78,925	549,617	1,254	7,188
Michigan	2,747,609	7,162,664	1,165,200	4,588,898	2,861	10,008

NUMBER AND VALUE OF DOMESTIC ANIMALS BY STATES—(Continued).

	SHEEP.		SWINE.		GOATS.	
	Number.	Value.	Number.	Value.	Number.	Value.
Minnesota	589,878	$1,740,088	1,440,806	$5,865,590	3,821	$12,908
Mississippi	312,632	534,945	1,290,498	2,963,573	55,388	45,594
Missouri	1,087,213	3,350,846	4,524,664	16,533,935	24,487	64,786
Montana	6,170,483	18,165,404	49,496	281,402	1,713	7,870
Nebraska	511,273	1,678,498	4,128,000	18,660,932	2,399	9,126
Nevada	887,039	2,344,865	15,174	75,712	4,633	12,948
New Hampshire	105,113	309,451	51,211	357,573	208	916
New Jersey	47,730	202,490	175,387	926,179	699	3,006
New Mexico	4,899,487	10,643,514	20,426	81,644	224,136	472,961
New York	1,745,746	5,921,941	676,639	3,794,332	1,316	6,442
North Carolina	301,941	477,421	1,300,469	2,516,410	42,901	37,997
North Dakota	681,952	1,987,136	191,798	930,470	1,122	5,308
Ohio	4,020,628	10,956,308	3,188,563	11,813,168	5,432	16,975
Oklahoma	71,358	179,738	584,878	2,380,025	3,772	10,854
Oregon	3,040,291	7,563,447	281,406	1,057,037	109,661	375,229
Pennsylvania	1,531,066	4,642,606	1,107,981	5,830,295	2,197	8,951
Rhode Island	11,207	41,282	11,508	90,614	23	131
South Carolina	71,538	111,770	618,995	1,411,516	26,576	24,450
South Dakota	775,236	2,434,206	823,120	3,540,072	2,915	15,050
Tennessee	496,011	1,179,424	1,976,984	4,838,713	25,884	38,938
Texas	1,889,298	3,982,117	2,665,614	7,605,687	627,333	923,777
Utah	3,818,423	10,256,488	65,732	293,115	1,427	2,702
Vermont	296,576	881,402	95,090	620,169	102	444
Virginia	692,929	2,089,779	946,443	2,572,524	5,305	10,002
Washington	929,873	2,450,929	181,535	830,704	2,876	10,757
West Virginia	968,843	2,664,556	442,844	1,389,808	847	2,123
Wisconsin	1,675,453	4,510,356	2,014,631	7,580,423	3,882	12,760
Wyoming	5,099,613	16,310,096	15,471	78,145	2,666	11,884
Totals	61,605,811	$170,337,002	62,876,108	$232,027,707	1,871.252	$3,266,080

NUMBER AND VALUE OF DOMESTIC ANIMALS IN THE UNITED STATES BY CLASSES.

[*From Census Report of* 1900.]

The requirements and methods of the Twelfth (1900) Census for the enumeration and valuation of domestic animals were far more detailed and complete than for former Censuses. Therefore, the results, widely variant as they may be from former counts and estimates, are presumably more nearly correct.

	Numbers.	Values.
Total number of farms in United States	5,739,657	
Number of farms reporting domestic animals	5,739,657	
Total value of domestic animals returned	5,499,988	$2,981,722,945
NEAT CATTLE:		
Calves under one year	15,333,099	$137,375,655
Steers over one and under two years	6,968,188	130,492,503
Steers over two and under three years	5,203,325	151,508,747
Steers three years and over	3,086,029	109,598,584
Bulls one year and over	1,315,963	45,391,948
Heifers over one and under two years	7,183,916	121,626,697
Dairy cows two years old and over	17,139,674	508,745,131
Other cows two years old and over	11,592,142	271,760,449
Total number of neat cattle	67,822,336	
Total value of neat cattle		$1,476,499,714
Number of farms reporting neat cattle	4,730,920	
HORSES:		
Colts under one year	1,315,208	$25,900,109
Colts over one and under two years	1,447,747	48,335,128
Horses two years and over	15,517,052	822,720,106
Total number of horses	18,280,007	
Total value of horses		$896,995,343
Number of farms reporting horses	4,532,018	
MULES:		
Colts under one year	231,697	$6,203,286
Colts over one and under two years	279,925	11,775,191
Mules over two years	2,759,499	178,834,083
Total number of mules	3,271,121	
Total value of mules		$196,812,560
Number of farms reporting mules	1,480,913	
ASSES AND BURROS:		
Number reported	95,603	
Value		$5,824,539
Number of farms reporting	33,875	
SHEEP:		
Lambs under one year	21,668,238	$42,027,828
Ewes one year and over	31,919,298	101,376,142
Rams and mothers one year and over	8,018.275	26,933,032
Total number of sheep	61,605,811	
Total value of sheep		$170,337,002
Number of farms reporting sheep	763,543	
SWINE OF ALL AGES:		
Total number of swine	62,876,108	
Total value of swine		$232,027,707
Number of farms reporting swine.	4.335,989	
GOATS OF ALL AGES:		
Total number of goats	1,871,252	
Total value of goats		$3,266,080
Number of farms reporting goats.	77,534	

NUMBER AND VALUE OF FARM ANIMALS IN THE UNITED STATES.

	NUMBER	VALUE
HORSES	13,537,524	$603,969,442
MULES	2,086,127	$111,717,092
MILCH COWS	16,292,360	$514,812,106
OXEN & OTHER CATTLE	27,610,054	$689,486,260
SHEEP	41,833,065	$122,665,913.
SWINE	62,876,108	$232,027,707

MALES OF MILITIA AGE IN THE UNITED STATES, INCLUDING ALL FROM 18 TO 45 YEARS OF AGE. COMPILED FROM LAST CENSUS

ALABAMA -	328,949
ALASKA -	19,703
ARIZONA -	34,231
ARKANSAS -	250,380
CALIFORNIA -	378,877
COLORADO -	142,136
CONNECTICUT -	207,696
DELAWARE -	40,029
D. OF COLUMBIA -	62,981
FLORIDA -	114,500
GEORGIA -	409,186
HAWAII -	72,596
IDAHO -	41,783
ILLINOIS -	1,091,472
INDIANA -	530,615
INDIAN TER. -	82,252
IOWA -	475,760
KANSAS -	309,439
KENTUCKY -	428,622
LOUISIANA -	268,739
MAINE -	142,175
MARYLAND -	243,776
MASSACHUSETTS -	632,369
MICHIGAN -	516,802
MINNESOTA -	399,734
MISSISSIPPI -	289,599
MISSOURI -	662,928
MONTANA -	83,574
NEBRASKA -	235,572
NEVADA -	11,576
NEW HAMPSHIRE -	88,149
NEW JERSEY -	422,758
NEW MEXICO -	41,464
NEW YORK -	1,639,395
NORTH CAROLINA -	326,202
NORTH DAKOTA -	80,191
OHIO -	893,327
OKLAHOMA -	85,884
OREGON -	105,628
PENNSYLVANIA -	1,905,916
RHODE ISLAND -	95,737
S. CAROLINA -	236,767
S. DAKOTA -	87,505
TENNESSEE -	384,249
TEXAS -	599,221
UTAH -	53,755
VERMONT -	70,850
VIRGINIA -	346,030
WASHINGTON -	149,586
W. VIRGINIA -	200,503
WISCONSIN -	425,825
WYOMING -	32,985

NUMBER AND VALUE OF FARM ANIMALS.

[*From Reports of Department of Agriculture.*]

YEARS.	HORSES.		MULES.		MILCH COWS.	
	Number.	Value.	Number.	Value.	Number.	Value.
1876	9,735,300	$632,446,985	1,414,500	$106,565,114	11,085,400	$320,346,728
1877	10,155,400	610,206,631	1,443,500	99,480,976	11,260,800	307,743,211
1878	10,329,700	600,813,681	1,637,500	104,322,939	11,300,100	298,499,866
1879	10,938,700	573,254,808	1,713,100	96,033,971	11,826,400	256,953,928
1880	11,201,800	613,296,611	1,729,500	105,948,319	12,027,000	279,889,420
1881	11,429,626	667,954,325	1,720,731	120,096,164	12,368,653	296,277,060
1882	10,521,554	615,824,914	1,835,169	130,945,378	12,611,632	326,489,310
1883	10,838,110	765,641,038	1,871,079	148,732,390	13,125,685	396,575,405
1884	11,169,683	833,734,400	1,914,126	161,214,976	13,501,206	423,486,649
1885	11,564,572	852,282,947	1,972,569	162,497,097	13,904,722	412,903,093
1886	12,077,657	860,823,208	2,052,593	163,381,096	14,235,388	389,985,529
1887	12,496,744	901,685,755	2,117,141	167,057,538	14,522,083	378,789,589
1888	13,172,936	946,096,154	2,191,727	174,853,563	14,856,414	366,252,173
1889	13,663,294	982,194,827	2,257,574	179,444,481	15,298,625	366,226,376
1890	14,213,837	978,516,562	2,331,027	182,394,099	15,952,883	353,152,133
1891	14,056,750	941,823,222	2,296,532	178,847,370	16,019,591	346,397,900
1892	15,498,140	1,007,593,636	2,314,699	174,882,070	16,416,351	351,378,132
1893	16,206,802	992,225,185	2,331,128	164,763,751	16,424,087	357,299,785
1894	16,081,139	769,224,799	2,352,231	146,232,811	16,487,400	358,998,661
1895	15,893,318	576,730,580	2,333,108	110,927,834	16,504,629	362,601,729
1896	15,124,057	500,140,186	2,278,946	103,204,457	16,137,586	363,955,545
1897	14,364,667	452,649,396	2,215,654	92,302,090	15,941,727	369,239,993
1898	13,960,911	478,362,407	2,190,282	96,109,516	15,840,886	434,813,826
1899	13,665,307	511,074,813	2,134,213	95,963,261	15,990,115	474,233,925
1900	13,537,524	603,969,442	2,086,027	111,717,092	16,292,360	514,812,106
1900 Census figures	18,280,007	886,995,343	3,271,121	196,812,560	17,139,647	508,745,131

YEARS.	OXEN AND OTHER CATTLE.		SHEEP.		SWINE.		Total Value Farm Animals.
	Number.	Value.	Number.	Value.	Number.	Value.	
1876	16,785,300	$319,623,509	35,935,300	$93,666,318	25,726,800	$175,070,484	$1,647,719,138
1877	17,956,100	307,105,386	35,804,200	80,892,683	28,077,100	171.077.196	1.576.506.083
1878	19,223,300	329,541,703	35.740,500	80,603,062	32,262,500	160 838 532	1 574.620.783
1879	21.408.100	329.543.327	38.123.800	79.023.984	34.766.100	110.613.044	1,445,423,062
1880	21,231,000	341,761,154	40,765,900	90,230,537	34,034,100	145,781,515	1,576.917,556
1881	20,938,710	362,861,509	43.569,899	104,070,759	36,247,683	170,535,435	1,721,795,252
1882	23,280,238	463,069,501	45,016,224	106,595,954	44,122,200	263,543,195	1,906,468,252
1883	28,046,077	611,549.109	49,237,291	124,366,335	43,270,086	291,951,221	2,338,215,768
1884	29,046,101	683,229,054	50,626,626	119,902,706	44,200,893	246,301,139	2,467,868,924
1885	29,866,573	694,382,913	50,360,243	107,960,650	45,142,657	226,401,683	2,456,428,383
1886	31,275,242	661,956,274	48,322,331	92.443,867	46,092,043	196,569,894	2,365,159,862
1887	33,511,750	663,137,926	44,759,314	89,872,839	44,612,836	200,043,291	2,400,586,938
1888	34,378,363	611,750,520	44,544,755	89,279,926	44,346,525	220,811,082	2,409,043,418
1889	35,032,417	597,236,812	42,599,079	90,640,369	50,301,592	291,307,193	2,507,050,058
1890	36,849,024	560,625,137	44,336,072	100,659,761	51,602,780	243,418,336	2,418,766,028
1891	36,875,648	544,127,908	43,421,136	108,397,447	50,625,106	210,193,923	2,329,787,770
1892	37,651,239	570,749,155	44,938,365	116,121,290	52,398,019	241,031,415	2,461,755,698
1893	35,954,196	547,882,204	47,273,553	125,909,264	46,094,807	295,426,492	2,483,506,681
1894	36,,608,168	536,789,747	45,048,017	89,186,110	45,206,498	270,384,626	2,170,816,754
1895	34,364,216	482,999,129	42,294,064	66,685,767	44,165,716	219,501,267	1,819,446,306
1896	32,085,409	508,928,416	38,298,783	65,167,735	42,842,759	186,529,745	1,727,926,084
1897	30,508,408	507,929,421	36,818,643	67,020,942	40,600,276	166,272,770	1,655,414,612
1898	29,264,197	612,296,634	37,656,960	92,721,133	39,759,993	174,351,409	1,888,654,925
1899	27,994,225	637,931,135	39,114,453	107,697,530	38,651,631	170,109,743	1,997,010.407
1900	27,610,054	689,486,260	41,883,065	122,665,913	....	....	2,042,050,812
1900 Census figures	38,349,563	830,378,328	61,605,811	170,337,002	62,876,108	232,027,707	2,981,722,945

COST OF WHEAT PER ACRE.

Reports from fifty-six different counties in Kansas, in 1902, showed the following average cost of raising an acre of wheat yielding twenty bushels:

Average cost of plowing or disking	$0.96
Harrowing	.28
Seed and seeding	.92
Cost of harvesting and stacking (or shocking)	1.36
Threshing and putting in bin or car	1.60
Wear, tear and interest on tools	$0.46
Rental of land, or interest on value	1.90
Total cost per acre, or twenty bushels	$7.31

WHEAT CROP OF THE UNITED STATES FOR THIRTY-FIVE YEARS—ACREAGE, PRODUCTION, FARM VALUE, CONSUMPTION, EXPORT, ETC.

[*From the National Bureau of Statistics.*]

YEAR.	Total Area	Total Production	Total Farm Value Dec. 1.	Average Value per Bushel Dec. 1.	Average Yield per Acre.	Average Value of Yield per Acre Dec 1.	Exports of Domestic.	Domestic Retained for Consumption	Per cent of Domestic Product Exported.
	Acres.	*Bushels.*	*Dollars.*	*Cents.*	*Bushels.*	*Dollars.*	*Bushels.*	*Bushels.*	*Per Cent.*
1867.....	15,424,496	151,999,906	232,109,630	152.7	9.9	15.05	12,646,941	139,352,965	8.32
1868.....	18,321,561	212,441,400	308,387,146	145.2	11.6	16.83	25,284,803	187,156,597	11.90
1869.....	18,460,132	224,036,600	243,032,746	108.5	12.1	13.17	29,717,201	194,319,399	13.27
1870.....	19,181,004	260,146,900	199,024,996	76.5	13.6	10.38	53,900,780	206,246,120	20.72
1871.....	18,992,591	235,884,700	222,766,969	94.4	12.4	11.73	52,580,111	183,304,589	22.30
1872.....	19,943,893	230,722,400	264,075,851	114.5	11.6	13.24	38,995,755	191,726,645	16.88
1873.....	20.858,359	249,997,100	278,522,068	111.4	11.9	13.35	52,014,715	197,982,385	20.80
1874.....	22,171,676	281,264,700	300,669,533	106.9	12.7	13.56	91,510,398	189,744,302	32.54
1875.....	24,967.027	308,102,700	265,881,167	86.3	12.3	10.65	72,912,817	236,189,883	23.60
1876.....	26,381,512	292,136,000	261,396,926	89.5	11.1	9.91	74,750,682	217,385,318	25.58
1877.....	27,627,021	289,356,500	278,697,238	96.3	10.5	10.09	57,043,936	232,312,564	19.73
1878.....	26,277,546	364,194,146	385,089,444	105.7	13.9	14.65	92,071,726	272,154,520	25.29
1879.....	32,108,560	420,122,400	325,814,119	77.6	13.1	10.15	150,502,506	269,619,894	35.82
1880.....	32,545,950	448,756,630	497,030,142	110.8	13.8	15.27	180,304,180	268,452,450	40.18
1881.....	37,986,717	498,549,868	474,201,850	95.1	13.1	12.48	186,321,514	312,228,354	37.38
1882	37,709,020	383,280,090	456,880,427	119.2	10.2	12.12	121,892,389	261,387,701	31.82
1883.....	37,067,194	504,185,470	445,602,125	88.4	13.6	12.02	147,811,316	356,374,154	29.33
1884.....	36,455,593	421,086,160	383,649,272	91.1	11.6	10.52	111,534,182	309,551,978	26.49
1885.....	39,475,885	512,765,000	330,862,260	64.5	13.0	8.38	132,570,366	380,194,634	25.86
1886.....	34,189,246	357,112,000	275,320,390	77.1	10.4	8.05	94,565,793	262,546,207	26.48
1887.....	36,806,184	457,218,000	314,226,020	68.7	12.4	8.54	153,804,969	303,413,031	33.66
1888.....	37,641,783	456,329,000	310,612,960	68.1	12.1	8.25	119,624,344	336,703,656	26.23
1889.....	37,336,138	415,868,000	385,248,030	92.6	11.1	10.32	88,600,742	327,267,258	21.31
1890.....	38,123,859	490,560,000	342,491,707	69.8	12.9	8.98	109,430,467	381,129,533	22.31
1891.....	36 087,154	399.262,000	334,773,678	83.8	11.1	9.28	106 181,316	293,080,684	26.60
1892.....	39,916,897	611,780,000	513,472,711	83.9	15.3	12.86	225,665,812	386,114,188	36.88
1893.....	38,554,430	515,949,000	322,111,881	62.4	13.4	8.35	191,912,635	324,036,365	37.20
1894.....	34,629,418	396,131,725	213,171,381	53.8	11.4	6.16	164,283,129	231,848,596	41.47
1895.....	34,882,436	460,267,416	225,902,025	49.1	13.2	6.48	144,812,718	315,454,698	31.46
1896.....	34,047,332	467,102,947	237,938,998	50.9	13.7	6.99	126,443,968	340,658,979	27.07
1897.....	34,618,646	427,684,346	310,602,539	72.6	12.4	8.97	145,124,972	282,559,374	33.93
1898.....	39,465,066	530,149,168	428,547,121	80.8	13.4	10.86	217,306,004	312,843,164	40.91
1899.....	44,055,278	675,148,705	392,770,320	58.2	15.3	8.92	222,618,420	452,530,285	32.97
1900.....	44,592,516	547,303,846	319,545,259	58.4	12.3	7.17	186,096,762	361,207,084	34
1901.....	42,495,385	522,229,505	323,525,177	62.0	12.3	7.61	215,990,073	306,239,432	41.36
1903.......	49,464,967	637,821,835	443,024,820	Indicated crop for 1904, 551,088,000 bushels.					

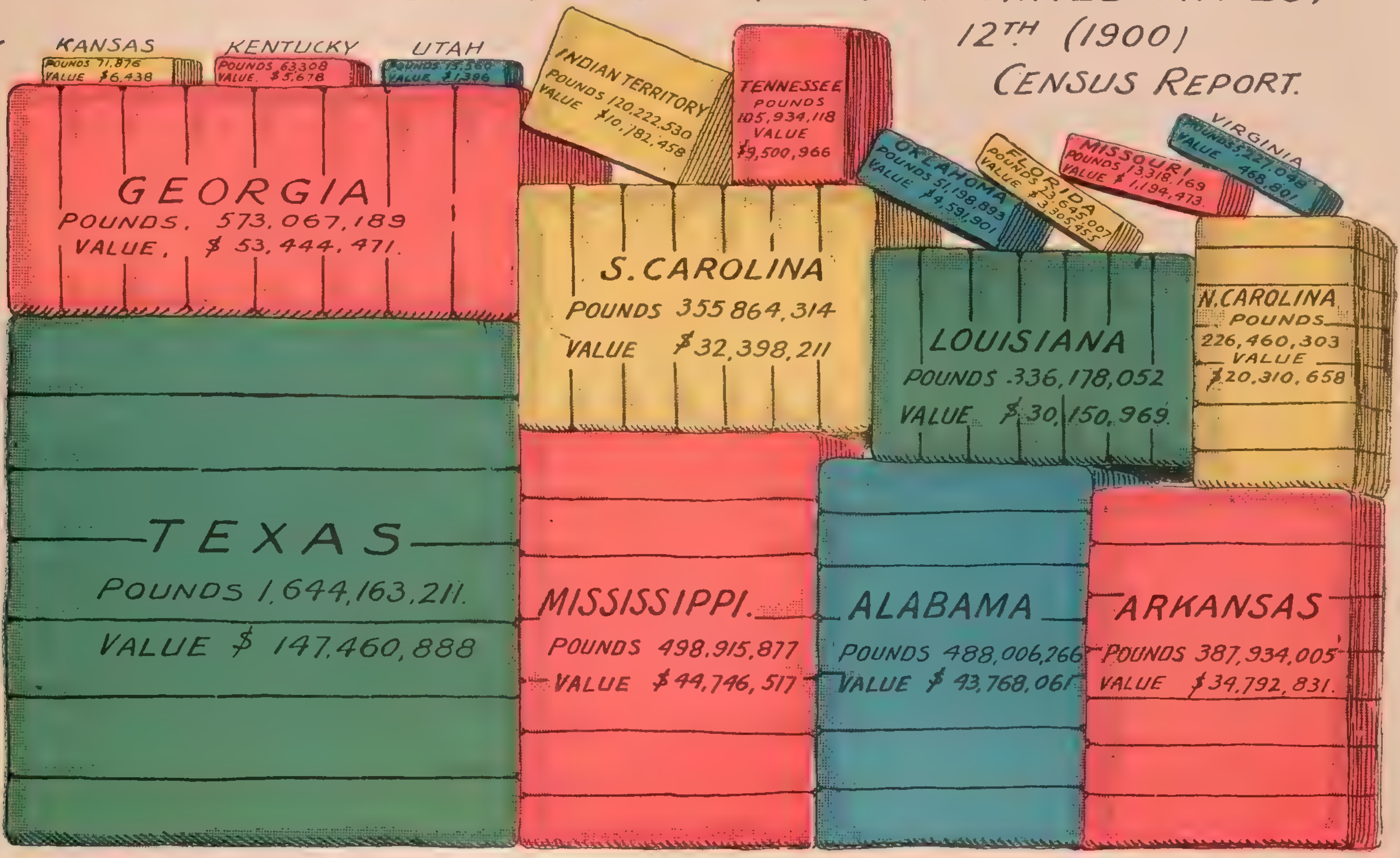
QUANTITY AND VALUE OF COTTON CROP

[*Twelfth* (1900) *Census Report.*]

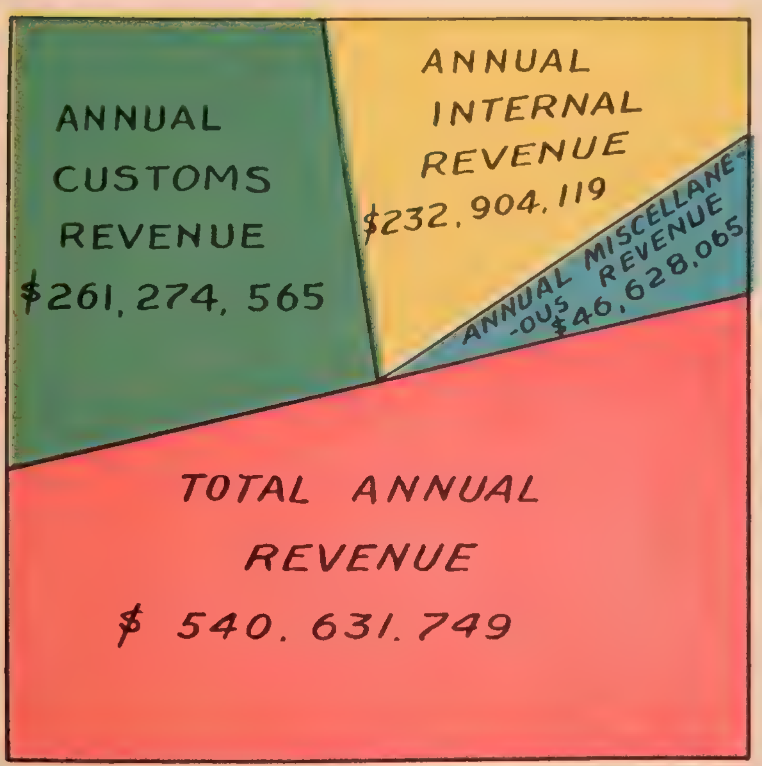
STATES AND TERRITORIES.	UPLAND COTTON.		SEA-ISLAND COTTON.		Total Value of Cotton.	COTTON SEED.		Grand Total Value of Cotton Crop
	Quantity (Pounds).	Value.	Quantity (Pounds).	Value.		Quantity (Tons).	Value.	
Total	4,796,248,574	$430,163,544.00	34,037,152	$6,766,638.18	$436,930,182.18	4,830,280	$77,284,480	$514,214,662.18
Alabama	488,006,266	$43,768,061.98	....	....	$43,768,061.98	488,006	$7,808,096	$51,576,157.98
Arkansas	387,934,005	34,792,831.07	....	....	34,792,831.07	387,934	6,206,944	40,999,775.07
Florida	12,904,667	1,157,387.32	10,740,340	$2,148,068.00	3,305,455.32	23,645	378,320	3,683,775.32
Georgia	552,655,901	49,566,326.12	20,411,288	3,878,144.72	53,444,470.64	573,067	9,169,072	62,613,542.84
Indian Territory	120,222,530	10,782,458.16	....	....	10,782,458.16	120,222	1,923,552	12,706,010.16
Kansas	71,876	6,446.38	....	....	6,446.38	71	1,136	7,582.38
Kentucky	63,308	6,677.94	....	....	5,677.94	63	1,008	6,685.94
Louisiana..........	336,178,052	30,150,969.04	....	....	30,150,969.04	336,178	5,378,848	35,529,817.04
Mississippi	498,915,877	44,746,517.72	....	....	44,746,517.72	498,915	7,982,640	52,729,157.72
Missouri	13,318,169	1,194,473.28	....	....	1,194,473.28	13,318	213,088	1,407,561.28
North Carolina	226,460,303	20,310,658.43	....	....	20,310,658.43	226,460	3,623,360	23,934,018.43
Oklahoma	51,198,893	4.591,900.72	....	....	4,591,900.72	51,198	819,168	5,411,068.72
South Carolina	352,978,790	31,657,785.23	2,885,524	740,425.46	32,398,210.69	355,864	5,693,824	38,092,034.69
Tennessee	105,934,118	9,500.966.21	....	....	9,500,966.21	105,934	1,694,944	11,195,910.21
Texas	1,644,163,211	147,460,887.99	....	....	147,460,887.99	1,644,163	26,306,608	173,767,495.99
Utah..............	15,560	1,395.54	....	....	1,395.54	15	240	1,635.54
Virginia	5,227,048	468,800.87	....	....	468,800.87	5,227	83,632	552,432.87

Cotton crop (1902), 10,701,453 bales; (1903), 10,954,154 bales.

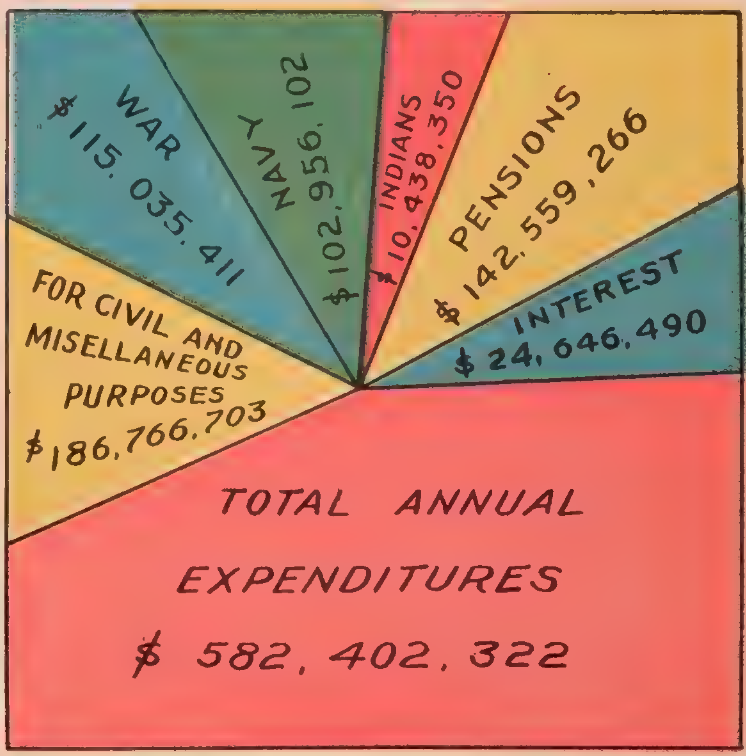
RELATIVE VIEW BY STATES OF COTTON CROP OF UNITED STATES, 12TH (1900) CENSUS REPORT.



RECEIPTS OF THE UNITED STATES AND THEIR SOURCES



EXPENDITURES OF THE UNITED STATES AND THEIR OBJECTS



QUANTITY AND VALUE OF COTTON CROP OF THE UNITED STATES.

[*From Figures Compiled by Henry G. Hester, of New Orleans.*]

STATES.	1900–1901.	1899–1900.	1898–1899.	' 1897–1898.
	Bales.	*Bales.*	*Bales.*	*Bales.*
Alabama	1,000,000	1,044,000	1,159,000	1,159,000
Arkansas	762,000	750,000	834,000	922,000
Florida	45,000	50,000	70,000	70,000
Georgia	1,295,000	1,309,000	1,536,000	1,536,000
Louisiana	719,000	625,000	590,000	740,000
Mississippi	950,000	1,230,000	1,522,000	1,627,000
North Carolina	542,000	561,000	583,000	583,000
South Carolina	911,000	921,000	1,012,000	1,003,000
Tennessee and others	350,000	355,000	414,000	485,000
Texas and Indian Territory	3 809 000	2,591,000	3,555,000	3,075,000
Total	10,383,000	9,436,000	11,275,000	11,200.000
Value	$494,567,549	$363,784,820	$282,772,987	$320,552,000

COTTON CROP OF THE UNITED STATES—HOME CONSUMPTION AND EXPORT FOR ONE HUNDRED YEARS.

[*By Bureau of Statistics, Washington, D. C.*]

YEARS.	Bales.	Taken by Home Mills. Bales.	Cotton Exported. Pounds.	YEARS.	Bales.	Taken by Home Mills. Bales.	Cotton Exported. Pounds.
1800	155,556	...	...	1874	4,170,388	1,320,000	1,358,602,303
1810	340,000	...	...	1875	3,827,845	1,201,000	1,260,418,903
1820	606,061	...	...	1876	4,632,313	1,354,000	1,491,405,334
1830	976,845	...	298,459,102	1877	4,474,069	1,429,000	1,455,369,130
1840	2,177,835	...	743,941,061	1878	4,773,865	1,496,000	1,607,533,511
1850	2,333,718	595.000	635,381,604	1879	5,074,155	1,561,000	1,628,372,833
1851	2,454,442	464,000	927,237,089	1880	5,761,252	1,795,000	1,822,061,114
1852	3,126,310	699,000	1,093,230,639	1881	6,605,750	1,938,000	2,191,928,772
1853	3,416,214	803,000	1,111,570,370	1882	5,456,048	1,964,000	1,739,975,971
1854	3,074,979	737,000	987,833,106	1883	6,949,756	2,072,000	2,288,075,062
1855	2,982,634	706,000	1,008,424,601	1884	5,713,200	1,877,000	1,862,572,530
1856	3,655,557	771,000	1,351,431,701	1885	5,706,165	1,753,000	1,891,659,472
1857	3,093,737	820,000	1,048,282,475	1886	6,575,691	2,162,000	2,058,037,444
1858	3,257,339	595,000	1,118,624,012	1887	6,505,087	2,088,000	2,169,457,330
1859	4,819,914	927,000	1,386,468,562	1888	7,046,833	2,261,000	2,264,120,826
1860	4,861,292	979,000	1,767,686,338	1889	6,938,290	2,270,000	2,384,816,669
1861	3,849,869	843,000	307,516,099	1890	7,311,322	2,325,000	2,471,799,853
1862	4,500,000	...	5,064,564	1891	8,652,597	2,640,000	2,907,358,795
1863	4,600,000	...	11,384,986	1892	9,035,379	2,856,000	2,935,219,811
1864	450,000	...	11,993,911	1893	6,700,365	2,375,000	2,212,115,126
1865	300,000	...	8,894,734	1894	7,549,817	2,291,000	2,683,289,325
1866	2,154,476	668,000	650,572,829	1895	9,901,251	2,871,000	3,517,533,109
1867	1,951,988	723,000	661,473,588	1896	7,157,346	2,505,000	2,335,226,385
1868	2,430,893	968,000	784,763,633	1897	8,757,964	2,792,000	3,103,754,949
1869	2,260,557	995,000	644,327,921	1898	11,199,994	3,465,000	3,850,264,295
1870	3,114,592	857,000	958.558,523	1899	11,274,840	3,632,000	3,773,410,293
1871	4,347,006	1,163,000	1,462,928,024	1900	9,436,416	3,644,000	3,100,583,188
1872	2,974,351	1,097,000	933,537,413	1901	10,425,000	[1]4,071,030	3,330,890,448
1873	3,930,508	1,201,000	1,200,063,530	1902	10,701,453	[1]4,539,018	3,220,393,500
				1903	10,954,154	4,471,305	3,241,424,500

[1] Includes Canadian mills.

BEET SUGAR INDUSTRY IN THE UNITED STATES.

[*Twelfth* (1900) *Census Report.*]

	No. of Establishments.	Capital Invested.	Salaries Paid.	Wage Earners.	Wages Paid.	Cost of Materials.	Value of Products.
California	8	$10,139,780	$117,880	909	$480,072	$2,243,580	$3,499,996
Michigan	9	4,013,743	95,693	473	216,704	1,109,903	1,602,266
All others	14	6,804,996	137,002	588	395,431	1,450,313	2,221,595
Totals	31	$20,958,519	$350,575	1,970	$1,092,207	$4,803,796	$7,323,857

QUANTITIES AND VALUES OF SUGAR BEET PRODUCTS.

	GRANULATED SUGAR.		RAW SUGAR.		TOTAL PRODUCT.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
California	43,839,911	$2,049,726	42,901,802	$1,440,592	86,741,713	$3,490,318
Michigan	32,737,098	1,561,100	971,185	39.184	33,708,283	1,600,284
All other States	39,109,347	1,969,701	3,898,732	162,278	43,008,079	2,131,979
Totals	115,686,356	$5,580,527	47,771,719	$1,642,054	163,458,075	$7,222,581

CORN CROP OF THE UNITED STATES FOR THIRTY-FIVE YEARS—ACREAGE, PRODUCTION, FARM VALUE, CONSUMPTION, EXPORT, ETC.

[*From the National Bureau of Statistics.*]

YEAR.	Total Area.	Total Production.	Total Farm Value Dec. 1.	Average Value per Bushel Dec. 1.	Average Yield per Acre.	Average Value of Yield per Acre Dec. 1.	Production.	Exports of Domestic.	Per Cent of Domestic Product Exported
	Acres.	*Bushels.*	*Dollars.*	*Cents.*	*Bushels.*	*Dollars.*	*Bushels.*	*Bushels.*	*Per Cent.*
1867	34,306,538	867,946,295	411,450,830	47.4	25.3	11.99	867,946,295	16,026,947	1.85
1868	32,520,249	768,320,000	437,769,763	57.0	23.6	13.46	768,320,000	12,493,522	1.63
1869	34,887,246	906,527,000	424,056,649	46.8	26.0	12.16	906,527,000	8,286,665	.91
1870	37,103,245	874,320,000	522,550,509	59.8	23.6	14.08	874,320,000	2,140,487	.24
1871	38,646,977	1,094,255,000	540,520,456	49.4	28.3	13.99	1,094,255,000	10,676,873	.98
1872	34,091,137	991,898,000	430,355,910	43.4	29.1	12.62	991,898,000	35,727,010	3.60
1873	35,526,836	1,092,719,000	385,736,210	35.3	30.8	10.86	1,092,719,000	40,154,374	3.67
1874	39,197,148	932,274,000	411,961,151	44.2	23.8	10.51	932,274,000	35,985,834	3.86
1875	41,036,918	850,148,500	496,271,255	58.4	20.7	12.09	850,148,500	30,025,036	3.53
1876	44.841.371	1,321,069,000	484,674,804	36.7	29.5	10.81	1,321,069,000	50,910,532	3.85
1877	49,033,364	1,283,827,500	436,108,521	34.0	26.2	8.89	1,283,827,500	72,652,611	5.66
1878	50,369,113	1,342,558,000	467,635,230	34.8	26.7	9.28	1,342,558,000	87,192,110	6.49
1879	51,585,000	1,388,218,750	440,280,517	31.7	26.9	8.54	1,388,218,750	87,884,892	6.33
1880	53,085,450	1,547,901,790	580,486,217	37.5	29.2	10.93	1,547,901,790	99,572,329	6.43
1881	62,317,842	1,717,434,543	679,714,499	39.6	27.6	10.91	1,717,434,543	93,648,147	5.46
1882	64,262,025	1,194,916,000	759,482,170	63.6	18.6	11.82	1,194,916,000	44,340,683	3.71
1883	65,659,545	1,617,025,100	783,867,175	48.5	24.6	11.94	1,617,025,100	41,655,653	2.58
1884	68,301,889	1,551,066,895	658,051,485	42.4	22.7	9.63	1,551,066,895	46,258,606	2.99
1885	69,683,780	1,795,528,000	640.735,560	35.7	25.8	9.19	1,795,528,000	52,876,456	2.95
1886	73,130,150	1,936,176,000	635,674,630	32.8	26.5	8.69	1,936,176,000	64,829,617	3.35
1887	75,694,208	1,665,441,000	610,311,000	36.6	22.0	8.06	1,665,441,000	41,368,584	2.48
1888	72,392,720	1,456,161,000	646,106,770	44.4	20.1	8.92	1,456,161,000	25,360,869	1.74
1889	75,672,763	1,987,790,000	677,561,580	34.1	26.3	8.95	1,987,790,000	70,841,673	3.57
1890	78,319,651	2,112,892,000	597,918,829	28.3	27.0	7.63	2,112,892,000	103,418,709	4.85
1891	71,970,763	1,489,970,000	754,433,451	50.6	20.7	10.48	1,489,970,000	32,041,529	2.15
1892	76,204,515	2,060,154,000	836,439,228	40.6	27.0	10.98	2,060,154,000	76,602,285	3.72
1893	70,626,658	1,628,464.000	642,146,630	39.4	23.1	9.09	1,628,464,000	47,121,894	2.89
1894	72,036,465	1,619,496,131	591,625,627	36.5	22.5	8.21	1,619,496,131	66,489,529	4.11
1895	62,582,269	1,212,770.052	554,719,162	45.7	19.4	8.86	1,212,770,052	28,585,405	2.36
1896	82,075,830	2,151,138,580	544,985,534	25.3	26.2	6.64	2,151,138,580	101,100,375	4.70
1897	81,027,156	2,283,875,165	491,006,967	21.5	28.2	6.06	2,383,875,165	178,817,417	7.83
1898	80,095,051	1,902,967,933	501,072,952	26.3	23.8	6.26	1,902,967,933	212,055,543	11.14
1899	77,721,781	1,924,184,660	552,023,428	28.7	24.8	7.10	1,924,184,660	177,255,046	9.21
1900	82,108,587	2,078,143,933	629,210,110	30.3	25.3	7.66	2,078,143,933	213,123,412	10.30
1901	83,320,872	2,105,102,516	751,220,034	35.7	25.3	9.02	2,105,102,516	181,405,473	8.62

1904. Indicated crop, 2,453,000,000 bushels.

RYE CROP OF THE UNITED STATES

[*Department of Agriculture Report.*]

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	*Bushels.*	*Bushels.*	*Cents.*	*Dollars.*
1866	1,548,033	13.5	20,864,944	82.2	17,149,706
1867	1,689,175	13.7	23,184,000	100.4	23,280,584
1868	1,651,321	13.6	22,504,800	94.9	21,349,190
1869	1,657,584	13.6	22,527,900	77.0	17,341,861
1870	1,176,137	13.2	15,473,600	73.2	11,326,967
1871	1,069,531	14.4	15,365,500	71.1	10,927,623

RYE CROP OF THE UNITED STATES (Continued).

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	Bushels.	Bushels.	Cents.	Dollars.
1872	1,048,654	14.2	14,888,600	67.6	10,071,061
1873	1,150,355	13.2	15,142,000	70.3	10,638,258
1874	1,116,716	13.4	14,990,900	77.4	11,610,339
1875	1,359,788	13.0	17,722,100	67.1	11,894,223
1876	1,468,374	13.9	20,374,800	61.4	12,504,970
1877	1,412,902	15.0	21,170,100	57.6	12,201,759
1878	1,622,700	15.9	25,842,790	52.5	13,566,002
1879	1,625,450	14.5	23,639,460	65.6	15,507,431
1880	1,767,619	13.9	24,540,829	75.6	18,564,560
1881	1,789,100	11.6	20,704,950	93.3	19,327,415
1882	2,227,894	13.4	29,960,037	61.5	18,439,194
1883	2,314,754	12.1	28,058,582	58.1	16,300,503
1884	2,343,963	12.2	28,640,000	51.9	14,857,040
1885	2,129,301	10.2	21,756,000	57.9	12,594,820
1886	2,129,918	11.5	24,489,000	53.8	13,181,330
1887	2,053,447	10.1	20,693,000	54.5	11,283,140
1888	2,364,805	12.0	28,415,000	58.8	16,721,869
1889	2,171,493	13.1	28,420,299	42.3	12,009,752
1890	2,141,853	12.0	25,807,472	62.9	16,229,992
1891	2,176,466	14.6	31,751,868	77.4	24,589,217
1892	2,163,657	12.9	27,978,824	54.2	15,160,056
1893	2,038,485	13.0	26,555,446	51.3	13,612,222
1894	1,944,780	13.7	26,727,615	50.1	13,395,476
1895	1,890,345	14.4	27,210,070	44.0	11,964,826
1896	1,831,201	13.3	24,369,047	40.9	9,960,769
1897	1,703,561	16.1	27,363,324	44.7	12,239,647
1898	1,643,207	15.6	25,657,522	46.3	11,875,350
1899	1,659,308	14.4	23,961,741	51.0	12,214,118
1900	1,591,362	15.1	23,995,927	51.2	12,295,417

1904. Indicated crop, 27,238,000 bushels.

OATS CROP OF THE UNITED STATES, .

[Department of Agriculture Report].

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	Bushels.	Bushels.	Cents.	Dollars.
1866	8,864,219	30 2	268,141,078	35.1	94,057,945
1867	10,746,416	25.9	278,698,000	44.5	123,902,556
1868	9,665,736	26.4	254,960,800	41.7	106,355,976
1869	9,461,441	30.5	288,334,000	38.0	109,521,734
1870	8,792,395	28.1	247,277,400	39.0	96,443,637
1871	8,365,809	30.6	255,743,000	36.2	92,591,359
1872	9,000,769	30.2	271,747,000	29.0	81,303,518
1873	9,751,700	27.7	270,340,000	34.6	93,474,161
1874	10,897,412	22.1	240,369,000	47.1	113,133,934
1875	11,915,075	29.7	354,317,500	32.0	113,441,491
1876	13,358,908	24.0	320,884,000	32.4	103,844,896
1877	12,826,148	31.7	406,394,000	28.4	115,546,194
1878	13,176,500	31.4	413,578,560	24.6	101,752,468
1879	12,683,500	28.7	363,761,320	33.1	120,533,294
1880	16,187,977	25.8	417,885,380	36.0	150,243,565
1881	16,831,600	24.7	416,481,000	46.4	193,198,970
1882	18,494,691	26.4	488,250,610	37.5	182,978,022
1883	20,324,962	28.1	571,302,400	32.7	187,040,264
1884	21,300,917	27.4	583,628,000	27.7	161,528,470
1885	22,783,630	27.6	629,409,000	28.5	179,631,860
1886	23,658,474	26.4	624,134,000	29.8	186,137,930
1887	25,920,906	25.4	659,618,000	30.4	200,699,790
1888	26,998,282	26.0	701,735,000	27.8	195,424,240
1889	27,462,316	27.4	751,515,000	22.9	171,781,008
1890	26,431,369	19.8	523,621,000	42.4	222,048,486
1891	25,581,861	28.9	738,394,000	31.5	232,312,267
1892	27,063,835	24.4	661,035,000	31.7	209,253,611
1893	27,273,033	23.4	638,854,850	29.4	187,576,092
1894	27,023,553	24.5	662,036,928	32.4	214,816,920
1895	27,878,406	29.6	824,443,537	19.9	163,655,068
1896	27,565,985	25.7	707,346,404	18.7	132,485,033
1897	25,730,375	27.2	698,767,809	21.2	147,974,719
1898	25,777,110	28.4	730,906,643	25.5	186,405,364
1899	26,341,380	30.2	796,177,713	24.9	198,167,975
1900	27,364,795	29.6	809,125,989	25.8	208,669,233

1904. Indicated crop, 887,437,000 bushels.

HAY CROP OF THE UNITED STATES—ACREAGE, QUANTITY AND VALUE.

[*Department of Agriculture Report.*]

STATES AND TERRITORIES.	Acreage.	Yield per Acre. Tons.	Production. Tons.	Price per Ton Dec. 1.	Farm Value, Dec. 1.
Maine	937,774	0.90	843,997	$12.95	$10,929,761
New Hampshire	596,076	.87	518,586	15.50	8,038,083
Vermont	860,100	1.24	1,066,524	11.05	11,785,090
Massachusetts	567,079	.97	550,067	17.40	9,571,166
Rhode Island	72,278	.92	66,496	18.70	1,243,475
Connecticut	480,237	.89	427,411	16.73	7,150,586
New York	4,138,261	.81	3,351,991	14.05	47,095.474
New Jersey	396,113	1.26	499,102	16.05	8,010,587
Pennsylvania	2,429,601	1.10	2,672,561	13.90	37,148,598
Maryland	277,332	1.09	302,292	14.05	4,247,203
Virginia	507,873	1.16	589,133	13.30	7,835,469
North Carolina	125,305	1.41	176,680	11.20	1,978,816
South Carolina	145,798	1.32	192,453	11.50	2,213,210
Georgia	112,566	1.69	190,237	12.75	2,425,522
Alabama	50,844	1.85	94,061	10.55	992,344
Mississippi	57,098	1.75	99,922	9.95	994,224
Louisiana	25,151	2.00	50,302	9.40	472,839
Texas	304,933	1.80	548,879	6.80	3,732,377
Arkansas	140,233	1.63	228,580	8.85	2,022,933
Tennessee	223,880	1.40	313,432	11.80	3,698,498
West Virginia	464,068	1.18	547,600	13.40	7,337,810
Kentucky	278,617	1.40	390,064	11.35	4,427,226
Ohio	1,559,242	1.06	1,652,797	11.05	18,263,407
Michigan	1,339,238	1.29	1,727,617	9.45	16,325,981
Indiana	1,374,754	1.21	1,663,452	9.75	16,218,657
Illinois	1,668,834	1.27	2,119,419	8.40	17,803,120
Wisconsin	1,059,438	1.15	1,218,354	9.65	11,757,116
Minnesota	1,227,021	1.16	1,423,344	6.95	9,892,241
Iowa	3,525,683	1.42	5,006,470	6.80	34,043,996
Missouri	2,145,748	1.29	2,768,015	6.95	19,237,704
Kansas	3,054,137	1.32	4,031,461	4.55	18,343,148
Nebraska	1,912,673	1.38	2,639,489	5.15	13,593,368
South Dakota	1,749,319	1.18	2,064,196	3.95	8,153,574
North Dakota	268,834	.92	247,327	5.65	1,397,398
Montana	369,161	1.60	590,658	8.70	5,138,725
Wyoming	293,718	1.68	493,446	7.30	3,602,156
Colorado	799,611	2.23	1,783,133	7.60	13,551,811
New Mexico	37,544	2.06	77,341	9.90	765,676
Utah	192,398	2.65	509,855	7.95	4,053,347
Nevada	154,330	2.43	375,022	7.70	2,887,669
Idaho	235,394	2.80	659,103	6.50	4,284,170
Washington	391,894	2.16	846,491	9.50	8,041,664
Oregon	713,653	2.35	1,677,085	6.80	11,404,178
California	1,793,491	1.51	2,708,171	8.15	22,071,594
All other States and Territories	75,558	1.40	108,290	12.53	1,356,849
Total.. 1900	39,132,890	1.28	50,110,906	$8.89	$445,538,870
1899	41,328,462	1.35	56,655,756	7.27	411,926,187
1898	42,780,827	1.55	66,376,920	6.00	398,060,647
1897	42,426,770	1.43	60,664,876	6.62	401,390,728
1896	43,259,756	1.37	59,282,158	6.55	388,145,614

Hay crop for 1903, 61,315,689 tons; value, $556,376,880.

RICE CROP OF THE UNITED STATES.

[*Census of* 1900.]

STATES.	1900	1890	1880	1870	1860	1850	1840
United States .... pounds	250,280,227	128,590,934	110,131,373	73,635,021	187,167,032	215,313,497	80,841,422
Alabama	926,946	399,270	810,889	222,945	493,465	2,312,252	149,019
Arkansas	8,630	7,110	......	73,021	16,831	63,179	5,454
California	......	......	......	......	2,140	......	......
Florida	2,254,492	1,011,805	1,294,677	401,687	223,704	1,075,090	481,420
Georgia	11,174,562	14,556,432	25,369,687	22,277,380	52,507,652	38,950,691	12,384,732
Illinois	......	......	......	......	......	......	460
Kentucky	......	......	......	......	......	5,688	16,376
Louisiana	172,732,430	75,645,433	23,188,311	15,854,012	6,331,257	4,425,349	3,604,534
Michigan	......	......	......	......	716	......	......
Minnesota	......	......	......	......	3,286	......	......
Mississippi	739,222	676,746	1,718,951	374,627	809,082	2,719,856	777,195
Missouri	......	......	......	......	9,767	700	50
North Carolina	7,892,580	5,846,404	5,609,191	2,059,281	7,593,976	5,465,868	2,820,388
South Carolina	47,360,128	30,338,951	52,077,515	32,304,825	119,100,528	159,930,613	60,590,861
Tennessee	......	......	......	3,399	40,372	258,854	7,977
Texas	7,186,863	108,423	62,152	63,844	26,031	88,203	......
Virginia	4,374	360	......	......	8,225	17,154	2,956

CANE SUGAR AND MOLASSES PRODUCED IN THE UNITED STATES FOR FORTY-NINE YEARS.

[*From National Bureau of Statistics.*]

FISCAL YEAR.	SUGAR.				MOLASSES.		
	Louisiana.	Other Southern States.	Total.		Louisiana.	Other Southern States.	Total.
	Pounds.	*Pounds.*	*Pounds.*	*Long Tons.*	*Gallons.*	*Gallons.*	*Gallons.*
1852-53	368,129,000	18,173 000	386,302,000	172,456	25,700,000	1,260,000	26,960,000
1853-54	495,156,000	29,998,000	525,154,000	234,444	31,000,000	1,956,000	32,956,000
1854-55	385,227,000	29,498,000	414,725,000	185,145	23,113,620	1,406,000	24,519,620
1855-56	254,569,000	22,000,000	276,569,000	123,468	15,274,140	1,320,000	16,594,140
1856-57	81,373.000	5,987,000	87,360.000	39,000	4,882,380	360,000	5,242,380
1857-58	307,666,700	14,303,000	321,969,700	143,736	19,578,790	795,000	20,373,790
1858-59	414,796,000	18,298,000	433,094,000	193,346	24,887,760	1,080,000	25,967,760
1859-60	255,115,750	11,534,000	266,649,750	119,040	17,858,100	736,000	18,504,100
1860-61	265,063,000	9,661,000	274,724,000	122,644	18,414,550	1,394,000	19,808,550
1861-62	528,321,500	11,509,000	539,830,500	240,996	34,216,000	3,502,000	37,718,000
1862-63	96,840,000	6,200,000	103,040,000	46,000	7,619,000	381,000	8,000,000
1863-64	84,500,000	560,000	85,060,000	37,973	2,303,000	217,000	2,250,000
1864-65	10,800,000	400,000	11,200,000	5,000	765,000	85,000	850,000
1865-66	19,900,000	780,000	20,680,000	9,232	1,128,000	172,000	1,300,000
1866-67	42,900,000	7,500,000	50,400,000	22,500	2,570,000	430,000	3,000,000
1867-68	41,400,000	10,120,000	51,520,000	23,000	2,800,000	570,000	3,370,000
1868-69	95,051,225	5,750,000	100,801,225	45,000	6,081,907	764,000	6,845,907
1869-70	90,452,946	5,380,000	104,832,946	46,800	5,724,256	876,000	6,600,256
1870-71	168,878,592	9,426,000	178,304,592	79,600	10,281,419	619,000	10,900,419
1871-72	146,906,125	9,446.000	156,352,125	69,800	10,019,958	681,000	10,700,958
1872-73	125,346,493	9,486,000	134,832,493	60,193	8,898,640	601,000	9,499,640
1873-74	103,241,119	5,399,000	108,640,119	48,500	8,203,944	507,000	8,710,944
1874-75	134,504,691	7,736,000	142,240,691	63,500	11,516,828	674,000	12,190,828
1875-76	163,418,070	9,062,000	172,480,070	77,000	10,870,546	1,380,000	12,250.546
1876-77	190,672,570	8,688,000	199,360,570	89,000	12,024,108	876,000	12,900,108
1877-78	147,101,941	11,940,000	159,041,941	71,000	14,237,280	913,000	15,150,280
1878-79	239,478,753	11,402,000	250,880,753	112,000	13,218,404	1,005,000	14,223,404
1879-80	198,962,278	8,915,000	207,877,278	92,802	12,189,190	1,211,000	13,400,190
1880-81	272,982,899	12,320,000	285,302,899	127,367	15,255,029	1,704,000	16,959,029
1881-82	159,874,950	11,200,000	171,074,950	76,373	9,691,104	2,308,896	12,000,000
1882-83	303,066,258	15,680,000	318,746,258	142,297	15,716,755	3,250,000	18,966,755
1883-84	287,712,230	15,232,000	302,944,230	135,243	15,277,316	3,118,000	18,395,316
1884-85	211,402,963	14,560,000	225,962,963	100,876	11,761,608	2,892,000	14,653,608
1885-86	286,626,486	16,128,000	302,754,486	135,158	17,863,732	3,645,000	21,508,732
1886-87	181,123,872	10,158,400	191,282,272	85,394	10,254,894	2,114,100	12,368,994
1887-88	353,855,877	22,048,320	375,904,197	167,814	21,980,241	4,651,260	26,631,501
1888-89	324,526,781	20,229,440	344,756,221	153,909	15,228,580	3,255,882	18,484,462
1889-90	287,490,271	18,276,000	305,766,271	136,503	18,431,988	3,950,000	22,381,988
1890-91	483,489,856	13,680,000	497,169,856	221,951	25,000,000	4,200,000	29,200,000
1891-92	360,499,307	10,080,000	370,579,307	165,437	16,429,868	4,200,000	20,629,868
1892-93	452,068,627	11,200,000	463,268,627	206,816	17,025,997	4,502,000	21,525,997
1893-94	595,473,374	15,352,244	610,825,618	272,913	18,469,529	8,439,197	26,908,726
1894-95	710,827,438	18,565,123	729,392,561	325,621	28,334,513	9,282,561	37,617,074
1895-96	532,494,652	11,139,074	543,633,726	242,693	21,663,410	5,569,547	27,232,957
1896-97	631,699,561	12,475,762	644,175,323	287,578	20,820,130	6,886,927	27,707,057
1897-98	695,101,878	12,850,000	707,951,878	316,183	22,241,510	7,093,634	29,335,144
1898-99	549,947,417	7,710,000	557,657,417	248,954	24,952,188	5,320,226	30,272,414
1899-1900	329.647,746	4,626,000	334,273,746	149,229	13,628,840	3,192,136	16,820,976
1900-1901	616,000,000	6,476,400	622,476,400	277,891	43,120,000	3,382,876	46,502,876

BARLEY CROP OF THE UNITED STATES.

[*Agricultural Department Report.*]

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	*Bushels.*	*Bushels.*	*Cents.*	*Dollars.*
1866	492,532	22.9	11,283,807	70.2	7,916,342
1867	1,131,217	22.7	25,727,000	70.1	18,027,746
1868	937,498	24.4	22,896,100	109.0	24,948,127
1869	1,025,795	27.9	28,652,200	70.8	20,298,164
1870	1,108,924	23.7	26,295,400	79.1	20,792,213
1871	1,113,735	24.0	26,718,500	75.8	20,264,015
1872	1,397,082	19.2	26 846,400	68.6	18,415,839
1873	1,387,106	23.1	32,044,491	86.7	27,794,229
1874	1,580,626	20.6	32,552,500	86.0	27,997,824

BARLEY CROP OF THE UNITED STATES, (Continued).

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	*Bushels.*	*Bushels.*	*Cents.*	*Dollars.*
1875	1,789,902	20.6	36,908,600	74.1	27,367,522
1876	1,766,511	21.9	38,710,500	63.0	24,402,691
1877	1,614,654	21.3	34,441,400	62.8	21,629,130
1878	1,790,400	23.6	42,245,630	57.9	24,454,301
1879	1,680,700	24.0	40,283,100	58.9	23,714,444
1880	1,843,329	24.5	45,165,346	66.6	30,090,742
1881	1,967,510	20.9	41,161,330	82.3	33,862,513
1882	2,272,103	21.5	48,953,926	62.9	30,768,015
1883	2,379,009	21.1	50,136,097	58.7	29,420,423
1884	2.608,818	23.5	61,203,000	48.7	29,779,170
1885	2,729,359	21.4	58,360,000	56.3	32,867,696
1886	2,652,975	22.4	59,428,000	53.6	31,840,510
1887	2,901,953	19.6	56,812,000	51.9	29,464,390
1888	2,996,382	21.3	63,884,000	59.0	37,672,032
1889	3,220,834	24.3	78,332,976	41.6	32,614,271
1890	3,135,302	21.4	67,168,344	62.7	42,140,502
1891	3.352,579	25.9	86,839,153	52.4	45,470,342
1892	3,400,361	23.6	80,096,762	47.5	38,026,062
1893	3,220,371	21.7	69,869,495	41.1	28,729,386
1894	3,170,602	19.4	61,400,465	44.2	27,134,127
1895	3,299,973	26.4	87,072,744	33.7	29,312,413
1896	2,950,539	23.6	69,695,223	32.3	22,491,241
1897	2,719,116	24.5	66,685,127	37.7	25,142,139
1898	2,583,125	21.6	55,792,257	41.3	23,064,359
1899	2,878,229	25.5	73,381,563	40.3	29,594,254
1900	2,894,282	20.4	58,925,833	40.8	24,075,271

1904. Indicated crop, 139,971,000 bushels.

BUCKWHEAT CROP OF THE UNITED STATES.

[*Department of Agriculture Report.*]

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel, Dec. 1.	Farm Value, December 1.
	Acres.	*Bushels.*	*Bushels.*	*Cents.*	*Dollars.*
1866	1,045,624	21.8	22,791,839	67.6	15,413,160
1867	1,227,826	17.4	21,359,000	78.7	16,812,070
1868	1,113,993	17.8	19,863,700	78.0	15,490 426
1869	1,028,693	16.9	17,431,100	71.9	12,534,851
1870	536,992	18.3	9,841 500	70.5	6,937,471
1871	413,915	20.1	8,328,700	74.5	6,208,165
1872	448,497	18.1	8,133,500	73.5	5,979,222
1873	454,152	17.3	7,837,700	73.0	5,878,629
1874	452,590	17.7	8,016,600	72.9	5,843,645
1875	575,530	17.5	10,082,100	62.0	6,254,564
1876	666,441	14.5	9,668,800	66.6	6,435,836
1877	649,923	15.7	10,177,000	66.9	6,808,180
1878	673,100	18.2	12,246,820	52.6	6,441,240
1879	639,900	20.5	13,140,000	59.8	7,856,191
1880	822,802	17.8	14,617,535	59.4	8,682,488
1881	828,815	11.4	9,486,200	86.5	8,205,705
1882	847,112	13.0	11,019,353	73.0	8,038,862
1883	857,349	8.9	7,668,954	82.2	6,303,980
1884	879,403	12.6	11,116,000	58.9	6,549,020
1885	914,394	13.8	12,626,000	55.9	7,057,363
1886	917,915	12.9	11,869,000	54.5	6,465,120
1887	910,506	11.9	10,844,000	56.5	6,122,320
1888	912,630	13.2	12,050,000	63.3	7,627,647
1889	837,162	14.5	12,110,329	50.5	6,113,119
1890	844,579	14.7	12,432,831	57.4	7,132,872
1891	849,364	15.0	12,760,932	57.0	7,271,506
1892	861,451	14.1	12,143,185	51.8	6,295,643
1893	815,614	14.9	12,132,311	58.4	7,074,450
1894	789,232	16.1	12,668,200	55.6	7,040,238
1895	763,277	20.1	15,341,399	45.2	6,936,325
1896	754,898	18.7	14,089,783	39.2	5,522,339
1897	717,836	20.9	14,997,451	42.1	6,319,188
1898	678,332	17.3	11,721,927	45.0	5,271,462
1899	670,148	16.6	11,094,473	55.7	6,183,675
1900	637,930	15.0	9,566,906	55.8	5,341,413

1904. Indicated crop, 15,000,000 bushels.

POTATO CROP OF THE UNITED STATES.

[*Department of Agriculture Report.*]

YEAR.	Acreage.	Average Yield per Acre.	Production.	Average Farm Price per Bushel Dec. 1.	Farm Value, December 1.
	Acres.	*Bushels.*	*Bushels.*	*Cents.*	*Dollars.*
1866	1,069,381	100.2	107,200,976	47.3	50,722,553
1867	1,192,195	82.0	97,783,000	65.9	64,462,486
1868	1,131,552	93.8	106,090,000	59.3	62,918,660
1869	1,222,250	109.5	133,886,000	42.9	57,481,362
1870	1,325,119	86.6	114,775,000	65.0	74,621,019
1871	1,220,912	98.7	120,461,700	53.9	64,905,189
1872	1,331,331	85.3	113,516,000	53.5	60,692,129
1873	1,295,139	81.9	106,089,000	65.2	69,153,709
1874	1,310,041	80.9	105,981,000	61.5	65,223,314
1875	1,510,041	110.5	166,877,000	34.4	57,357,515
1876	1,741,983	71.7	124,827,000	61.9	77,319,541
1877	1,792,287	94.9	170,092,000	43.7	74,272,500
1878	1,776,800	69.9	124,126,650	58.7	72,923,575
1879	1,836,800	98.9	181,626,400	43.6	79,153,673
1880	1,842,510	91.0	167,659,570	48.3	81,062,214
1881	2,041,670	53.5	109,145,494	91.0	99,291,341
1882	2,171,635	78.7	170,972,508	55.7	95,304,844
1883	2,289,275	90.9	208,164,425	42.2	87,848,991
1884	2,220,980	85.8	190,642,000	39.6	75,524,290
1885	2,265,823	77.2	175,029,000	44.7	78,153,403
1886	2,287,136	73.5	168,051,000	46.7	78,441,940
1887	2,357,322	56.9	134,103,000	68.2	91,506,740
1888	2,533,280	79.9	202,365,000	40.2	81,413,589
1889	2,647,989	77.4	204,990,345	35.5	72,704,413
1890	2,651,579	55.8	148,078,945	75.8	112,205,235
1891	2,714,770	93.7	254,426,971	35.8	91,024,521
1892	2,547,962	61.5	156,654,819	66.1	103,567,520
1893	2,605,186	70.3	183,034,203	59.4	108,661,801
1894	2,737,973	62.4	170,787,338	53.6	91,526,787
1895	2,954,952	100.6	297,237,370	26.6	78,984,901
1896	2,767,465	91.1	252,234,540	28.6	72,182,350
1897	2,534,577	64.7	164,015,964	54.7	89,643,059
1898	2,557,729	75.2	192,306,338	41.4	79,574,772
1899	2,581,353	88.6	228,783,232	39.0	89,328,832
1900	2,611,054	80.8	210,926,897	43.1	90,811,167
1903	....	....	247,127,880	....	151,638,094

TOBACCO INDUSTRY OF THE UNITED STATES.

[*From Twelfth* (1900) *Census.*]

MANUFACTURES OF TOBACCO.

	Totals.	Cigars and Cigarettes	Chewing and Smoking Tobacco and Snuff.	Stemming and Rehandling.
Number of establishments	15,252	14,539	437	276
Capital invested	$124,089,871	$67,706,493	$43,856,570	$12,526,808
Salaries paid	8,951,534	4,712,786	3,884,071	354,677
Wages paid	49,852,484	40,925,596	7,109,821	1,817,067
Miscellaneous expenses	79,495,422	31,436,701	47,533,705	525,016
Cost of materials	107,182,656	57,946,020	35,038,287	14,198,349
Value of products	283,076,546	160,223,152	103,754,362	19,099,032

QUANTITY OF LEAF TOBACCO USED IN MANUFACTURES.

[*Internal Revenue Report*].

YEAR.	NUMBER OF POUNDS OF LEAF TOBACCO USED.			
	Total.	Cigars.	Cigarettes.	Tobacco and Snuff.
1890	311,862,784	[1]91,746,311	....	220,116,473
1891	322,511,067	85,435,928	9,115,810	237,959,329
1892	339,012,619	90,875,830	9,907,222	238,229,567
1893	312,907,679	84,428,797	12,497,183	215,981,699
1894	317,640,403	77,359,405	12,614,409	227,666,589
1895	323,656,332	77,499,875	16,094,338	230,062,119
1896	308,398,583	75,938,866	19,114,190	213,345,527
1897	357,171,033	78,736,071	17,477,402	260,957,560
1898	349,877,737	85,437,974	17,081,349	247,358,414
1899	367,139,310	93,746,678	14,416,947	258,975,685
1900	379,162,884	105,395,189	13,084,037	260,683,658

---

[1] Includes cigarettes.

TOBACCO INDUSTRY IN THE UNITED STATES—(Continued).

QUANTITY OF TOBACCO GROWN BY STATES AND TERRITORIES.

[*From Twelfth* (1900) *Census.*]

STATES AND TERRITORIES.	1900.	1890.	1880.	1870.	1860.	1850.	1840.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
United States	868,163,275	488,256,646	472,661,057	262,735,341	434,209,461	199,752,655	219,163,309
Alabama	311,950	162,430	452,426	152,742	232,914	164,990	273,302
Arizona	100	2	600	100	....	....	....
Arkansas	831,700	954,790	970,220	594,886	989,980	218,936	148,439
California	23,490	12,907	73,317	63,809	3,150	1,000	....
Colorado	....	120	....	890	....	....	....
Connecticut	16,930,770	8,874,924	14,044,652	8,328,798	6,000,133	1,267,624	471,657
Dakota	940	785	1,897	....	10	....	....
Delaware	2,000	29,680	1,278	250	9,699	....	272
District of Columbia	....	....	1,400	....	15,200	7,800	55,550
Florida	1,125,600	470,443	21,182	157,405	828,815	998,614	75,274
Georgia	1,105,600	263,752	228,590	288,596	919,318	423,924	162,894
Hawaii	50,410	....	....	....	....	....	....
Idaho	750	....	400	....	....	....	....
Illinois	1,447,150	3,042,936	3,935,825	5,249,274	6,885,262	841,394	564,326
Indiana	6,882,470	7,710,297	8,872,842	9,325,391	7,993,378	1,044,620	1,820,306
Indian Territory	97,030	....	....	....	....	....	....
Iowa	127,420	74,396	420,477	70,792	303,168	6,041	8,076
Kansas	45,960	62,083	190,669	33,241	20,349	....	....
Kentucky	314, 88,050	221,880,303	171,120,784	105,305,869	108,126,840	55,501,196	53,436,909
Louisiana	102,100	46,845	55,954	15,541	39,940	26,878	119,824
Maine	150	200	250	15	1,583	....	30
Maryland	24,589,480	12,356,838	26,082,147	15,785,339	38,410,965	20,407,497	24,816,012
Massachusetts	6,406,570	2,794,848	5,369,436	7,312,885	3,233,198	138,246	64,955
Michigan	64,580	11,984	83,969	5,385	121,099	1,245	1,602
Minnesota	127,730	23,285	67,922	8,247	38,938	....	....
Mississippi	62,760	62,111	414,663	61,012	159,141	49,960	83,471
Missouri	3,041,996	9,424,823	12,015,657	12,320,483	25,086,196	17,113,784	9,067,913
Montana	200	25	....	600	....	....	....
Nebraska	5,765	11,049	57,979	5,988	3,636	....	....
Nevada	....	....	1,500	25	....	....	....
New Hampshire	181,644	86,593	170,843	155,334	18,581	50	115
New Jersey	720	33,855	172,315	40,871	149,485	310	1,922
New Mexico	1,460	1,415	890	8,587	7,044	8,467	....
New York	13,958,370	9,316,135	6,481,431	2,349,798	5,764,582	83,189	744
North Carolina	127,503,400	36,375,258	26,986,213	10,150,087	32,853,250	11,984,786	16,772,359
Ohio	65,957,100	37,853,563	34,735,235	18,741,973	25,092,581	10,454,449	5,942,275
Oklahoma	11,880	....	....	....	....	....	....
Oregon	4,630	3,325	17,325	3,847	405	325	....
Pennsylvania	41,502,620	28,956,247	36,943,272	3,467,539	3,181,586	912,651	325,018
Rhode Island	....	....	785	796	705	....	317
South Carolina	19,895,970	222,898	45.678	34,805	104,412	74,285	51,519
Tennessee	49,157,550	36,368,395	29,365,052	21,465,452	43,448,097	20,148,932	29,550,432
Texas	550,120	175,706	221,283	59,706	97,914	66,897	....
Utah	....	....	....	....	....	70	....
Vermont	291,390	70,518	131,432	72,671	12,245	....	585
Virginia	122,884,900	48,522,655	79,988,868	37,086,364	123,968,312	56,803,227	75,347,106
Washington	1,180	7,040	6,930	1,682	10	....	....
West Virginia	3,087,140	2,602,021	2,296,146	2,046,452	....	....	....
Wisconsin	45,500,480	19,389,166	10,608,423	960,813	87,340	1,268	115

Total acres in tobacco (1903) 1,037,735; production, 815,972,425 lbs.; value $55,514,627

COST, YIELD AND PROFIT OF STRAWBERRY PRODUCTION ON FAVORABLE SOILS AND LOCATIONS.

ITEMS.	Land Under Poor Cultivation. Yield 2000 Quarts per acre.	Land Under Ordinary Cultivation. Yield 2500 Quarts per acre.	Land Under Improved Cultivation. Yield 3300 Quarts per acre.	Land Under Highly Improved Cultivation. Yield 4000 Quarts per acre.
Preparing ground	$1.50	$2.00	$2.50	$4.00
Plants	6.00	8.00	10.00	12.50
Planting	1.00	1.25	2.00	3.50
Cultivating, hoeing, and blossoming	6.50	10.00	12.50	20.00
Phosphates	....	3.00	9.00	15.00
Mulch and mulching	....	....	2.00	8.00
Picking	30.00	37.50	49.50	80.00
Crates, including cups	14.70	18.62	24.15	29.40
Labor of packing and hauling	3.00	3.75	4.95	6.00
Superintendence, rent, or interest, and incidentals	2.30	2.75	3.65	4.15
Totals	$65.00	$86.87	$120.25	$182.55
Receipts and selling-price per quart	at 4 cents: $80.00	at 4½ cents: $122.50	at 5 cents: $165.00	at 6½ cents: $260.00
Leaving net profit per acre	$15.00	$35.63	$45.75	$77.45

WOOL CROP OF THE UNITED STATES. —QUANTITY PRODUCED, IMPORTED, EXPORTED, AND RETAINED.

[*Bureau of Statistics.*]

Fiscal Year.	Production.	Exports of Domestic.	Domestic Retained for Consumption.	Imports.	Exports of Foreign.	Foreign Retained for Consumption.	Total Consumption, Domestic and Foreign.	Per Cent of Consumption, Foreign.
	Pounds..	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	
1840-41	35,802,114	....	35,802,114	9,898,740	85,528	9,813,212	45,615,326	21.5
1850-51	52,516,959	35,898	52,481,061	18,695,294	....	18,695,294	71,176,355	26.3
1860-61	60,264,913	1,055,928	59,208,085	26,282,955	157,064	26,125,891	85,334,876	30.6
1863-64	106,000,000	355,722	105,644,278	75,121,728	708,850	74,412,878	180,057,156	41.3
1864-65	123,000,000	155,482	122,844,518	91,250,114	223,475	91,026,639	213,871,157	42.6
1865-66	142,000,000	466,182	141,533,818	44,420,375	679,281	43,741,094	185,274,912	23.6
1866-67	155,000,000	973,075	154,026,925	71,287,988	852,045	70,435,943	224,462,868	31
1867-68	160,000,000	307,418	159,692,582	38,158,382	619,614	37,538,768	197,231,350	19
1868-69	168,000,000	558,435	167,441,565	25,467,336	2,801,852	22,665,484	190,107,049	11.9
1869-70	180,000,000	444,387	179,555,613	39,275,926	342,417	38,933,509	218,489,122	17.8
1870-71	162,000,000	152,892	161,847,108	49,230,199	1,710,053	47,520,146	209,367,254	22.7
1871-72	160,000,000	25,195	159,974,805	68,058,028	1,305,311	66,752,717	226,727,522	29.4
1872-73	150,000,000	140,515	149,859,485	126,507,409	2,343,937	124,163,472	274,022,957	45.3
1873-74	158,000,000	75,129	157,924,871	85,496,049	7,040,386	78,455,663	236,380,534	33.2
1874-75	170,000,000	319,600	169,680,400	42,939,541	6,816,157	36,123,384	205,803,784	17.5
1875-76	181,000,000	178,034	180,821,966	54,901,760	3,567,627	51,334,133	232,156,099	22.1
1876-77	192,000,000	104,768	191,895,232	44,642,836	1,518,426	43,124,410	235,019,642	18.3
1877-78	200,000,000	79,599	199,920,401	42,171,192	3,088,957	39,082.235	239.002.636	16.3
1878-79	208,250.000	347,854	207,902,146	48,449,079	5,952,221	42,496,858	250,399,004	16.9
1879-80	211,000,000	60,784	210,939,216	39,005,155	4,104,616	34.900.539	245,839,755	14.2
1880-81	232,500,000	191,551	232,308,449	128,131,747	3,648,520	124,483,227	356,791,676	34.9
1881-82	240,000,000	71,455	239,928,545	55,964,236	5,507,534	50.456,702	290,385,247	17.3
1882-83	272,000,000	116,179	271,883,821	67,861,744	3,831,836	64,029,908	335,903,729	19
1883-84	290,000,000	64,474	289,935,526	70,575,478	4,010,043	66,565,435	356,500,961	18.7
1884-85	300,000,000	10,393	299,989,607	78,350,651	2,304,701	76,045,950	376,035,557	20.6
1885-86	308,000,000	88,006	307,911,994	70,596,170	3,115,339	67,480,831	375,392,825	18
1886-87	302,000,000	146,423	301,853,577	129.084.958	6.534.426	122.550.532	424,404,109	28.9
1887-88	285,000,000	257,940	284,742,060	114,038,030	6,728,292	107,309,738	392,051,798	27.4
1888-89	269,000,000	22,164	268,977,836	113,558,753	4,359,731	109,199,022	378,176,858	28.9
1889-90	265,000,000	141,576	264,858,424	126,487,729	3,263,094	123,224,635	388,083,059	31.8
1890-91	276,000,000	231,042	275,768,958	105,431,285	3,288,467	102,142,818	377,911,776	27
1891-92	285,000,000	291,922	284,708,078	129,303,648	2,638,123	126,665,525	411,373,603	30.8
1892-93	294,000,000	202,456	293,797,544	148,670,652	3,007,563	145,663,089	439,460,633	33.1
1893-94	303,153,000	91,858	303,061,142	172,433,838	4,218,637	168,215,201	471,276,343	35.7
1894-95	298,057,384	520,247	297,537,137	55,152,585	5,977,407	49,175,178	346,712,315	14.2
1895-96	309,748,000	4,279,109	305,468,891	206,033,906	2,343,081	203,690,825	509,159,716	40
1896-97	272,474,708	6,945,981	265,528,727	230,911,473	6,026,236	224,885,237	490,413,964	45.9
1897-98	259,153,251	5,271,535	253,881,716	350,852,026	3,427,834	347,424,192	601,305,908	57.8
1898-99	266,720,684	121,139	266,599,545	132,795,202	2,504,832	130,290,370	396,889,915	32.8
1899-1900	272,191,330	1,683,419	270,507,911	76,736,209	12,411,916	64,324,293	334,832,204	19.2
1900-01	288,636,621	2,200,309	286,436,312	155,928,455	5,702,251	150,226,204	436,662,516	34.4
1901-02	302.502,328	199.565	302,302,763	103,583,505	3,590,502	99,993,003	402,295,766	24.9
1903-04	287,450,000	....	....	....	....	....	....	....

FARM CROPS OF UNITED STATES, CLASSIFIED—ACRES, QUANTITIES AND VALUES.[1]

[*From Twelfth* (1900) *Census.*]

Crops.	Acres.	Unit of Measure.	Quantity.	Value.
Corn	94,916,911	Bushels	2,666,440,279	$828,258,326
Wheat	52,588,574	Bushels	658,534,252	369,945,320
Oats	29,539,698	Bushels	943,389,375	217,098,584
Barley	4,470,196	Bushels	119,634,877	41,631,762
Rye	2,054,292	Bushels	25,568,625	12,290,540
Buckwheat	807,060	Bushels	11,233,515	5,747,853
Broom corn	178,584	Pounds	90,947,370	3,588,414
Rice	351,344	Pounds	283,722,627	7,891,613
Kafir corn	266,513	Bushels	5,169,113	1,367,040
Flaxseed	2,110,517	Bushels	19,979,492	19,624,901
Clover seed	....	Bushels	1,349,209	5,359,578
Grass seed	....	Bushels	3,515,869	2,868,839
Hay and forage	61,691,166	Tons	84,011,299	484,256,846
Cottonseed	....	Tons	4,566,100	46,950,575
Cotton	24,275,101	Bales	9,534,707	323,758,171
Tobacco	1,101,483	Pounds	868,163,275	56,993,003
Hemp	16.042	Pounds	11,750,630	546,338
Hops	55,613	Pounds	49,209,704	4,081,929
Peanuts	516,658	Bushels	11,964,957	7,271,230
Peppermint	8,591	Pounds	187,427	143,618
Dry beans	453,867	Bushels	5,064,844	7,634,262

FARM CROPS OF UNITED STATES, CLASSIFIED—ACRES, QUANTITIES AND VALUES—(Continued).

Crops.	Acres.	Unit of Measure.	Quantity.	Value.
Castor beans	25,738	Bushels	143,388	$134,084
Dry pease	968,371	Bushels	9,440,269	7,909,074
Potatoes	2,938,952	Bushels	273,328,207	98,387,614
Sweet potatoes	537,447	Bushels	42,526,696	19,876,200
Onions	47,983	Bushels	11,791,121	6,637,625
Chicory	3,069	Pounds	21,495,870	73,627
Miscellaneous vegetables	2,115,570			113,871,842
Maple sugar		Pounds	11,928,770	1,074,260
Maple sirup		Gallons	2,056,611	1,562,451
Sugar cane	452,673	Tons	6,441,578	
(*a*) Cane sold		Tons	1,298,620	4,611,239
(*b*) Cane kept for seed		Tons	1,453,447	5,018,469
(*c*) Sugar made		Pounds	664,020,814	24,584,459
(*d*) Molasses made		Gallons	10,379,210	796,990
(*e*) Sirup made		Gallons	12,293,032	4,293,475
Sorghum cane	293,152	Tons	291,703	815,019
Sorghum sirup		Gallons	16,972,783	5,288,083
Sugar beets	110,170	Tons	793,353	3,323,240
Small fruits	309,780			25,030,877
Grapes	282,473	Centals	13,010,134	14,090,937
Orchard fruits	6,064,887	Bushels	212,366,646	83,751,840
Subtropical fruits	165,858			8,549,863
Nuts				1,950,161
Forest products				109,989,868
Flowers and plants	9,314			18,759,464
Miscellaneous seeds	10,106			826,019
Nursery products	59,492			10,123,873
Willows	521			36,523
Miscellaneous	23,793			1,452,613
Total	289,821,559			$3,020,128,531

CENTERS OF POPULATION, FARMS AND PRODUCTION IN UNITED STATES.

[From Census Reports.]

POPULATION CENTERS.

Census Year.	North Latitude.			West Longitude.			Approximate Location by Important Towns.
	°	′	″	°	′	″	
1900	39	9	6	85	48	9	6 miles southeast of Columbus, Ind.
1890	39	11	9	85	32	9	20 miles east of Columbus, Ind.
1880	39	4	1	84	39	7	8 miles west by south of Cincinnati, Ohio.
1870	39	12	00	83	35	7	48 miles east by north of Cincinnati, Ohio.
1860	39	00	4	82	48	8	20 miles south of Chillicothe, Ohio.
1850	38	59	00	81	19	00	23 miles southeast of Parkersburg in the present State of West Virginia.

CENTERS OF NUMBER OF FARMS.

Census Year.	North Latitude.			West Longitude.			Approximate Location by Important Towns.
1900	38	17	00	88	12	30	110 miles east by south of St. Louis, Mo., in Wayne Co., Ill.
1890	38	38	21	86	14	46	82 miles south by west of Indianapolis, in Washington Co., Ind.
1880	38	48	30	84	24	30	21 miles south by east of Cincinnati, Ohio, in Kenton Co., Ky.
1870	39	11	18	83	56	44	31 miles east-northeast of Cincinnati, in Brown Co., Ohio.
1860	39	29	38	83	52	36	42 miles northeast of Cincinnati, in Clinton Co., Ohio.
1850	39	14	54	81	43	38	10 miles south of west of Parkersburg, W. Va., in Athens Co., Ohio.

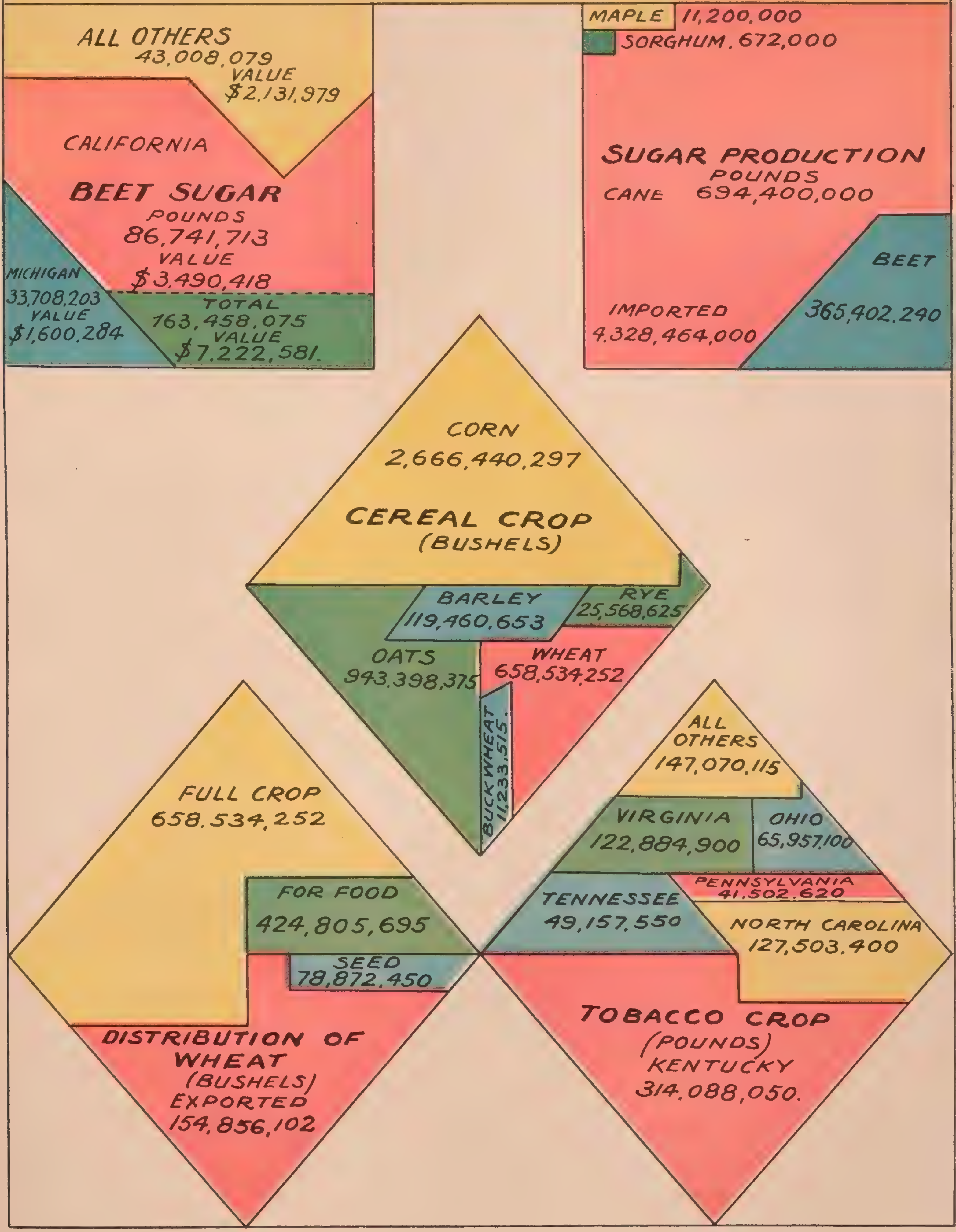
CENTERS OF ACRES OF FARM LAND.

Census Year.	North Latitude.			West Longitude.			Approximate Location by Important Towns.
	°	′	″	°	′	″	
1900	38	11	36	92	50	19	48 miles southwest of Jefferson City, in Camden Co., Mo.
1890	38	58	22	90	11	44	25 miles north by east of St. Louis, Mo., in Madison Co., Ill.
1880	38	8	28	88	2	43	125 miles east-southeast of St. Louis, Mo., in White Co., Ill.
1870	38	5	19	86	34	17	50 miles east by north of Evansville, in Perry Co., Ind.
1860	37	41	1	85	54	30	40 miles south by west of Louisville, in Hardin Co., Ky.
1850	37	26	20	83	36	22	125 miles southeast by south of Cincinnati, Ohio, in Breathitt Co., Ky.

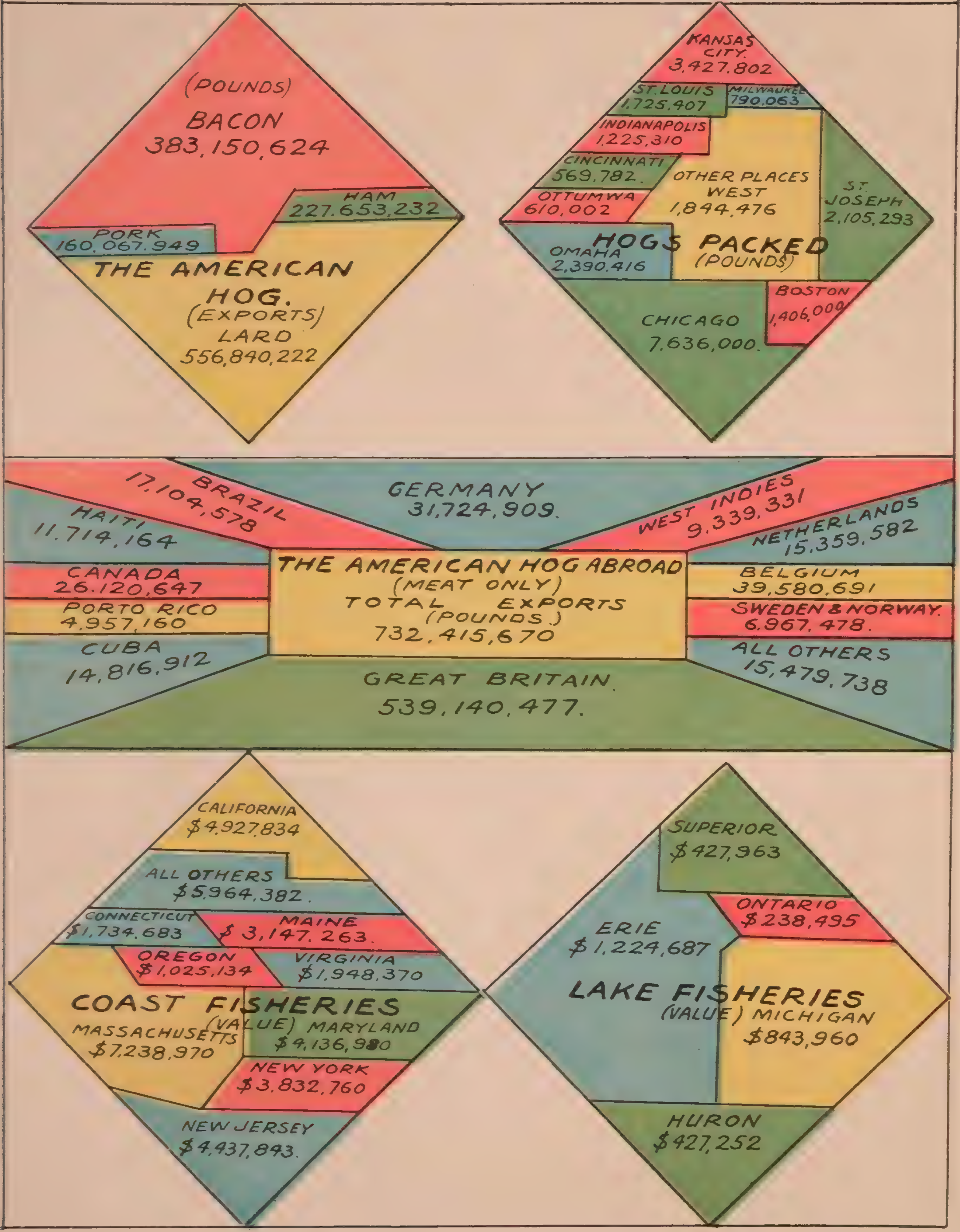
CENTERS OF VALUE OF FARM PROPERTY.

Census Year.	North Latitude.			West Longitude.			Approximate Location by Important Towns.
1900	39	57	48	90	21	35	39 miles west-northwest of Springfield, in Cass Co., Ill.
1890	39	58	4	89	2	15	34 miles east northeast of Springfield, in Macon Co., Ill.
1880	40	8	26	85	44	46	33 miles northeast of Indianapolis, in Madison Co., Ind.
1870	40	15	2	83	51	8	44 miles west-northwest of Columbus, Ohio.
1860	38	55	39	83	13	39	66 miles south of east of Cincinnati, in Pike Co., Ohio.
1850	39	25	53	80	28	33	61 miles south of east of Parkersburg, in Harrison Co., W. Va.

PRODUCTS OF THE UNITED STATES OF TO-DAY.



PRODUCTS OF THE UNITED STATES OF TO-DAY.



CENTERS OF POPULATION, FARMS AND PRODUCTION IN UNITED STATES—(Continued).

Centers of Investments in Manufactures.

Census Year.	North Latitude.			West Latitude.			Approximate Location by Important Towns.
	°	′	″	°	′	″	
1900....	40	36	36	82	18	7	59 miles south-southwest of Cleveland, O.
1890....	40	42	22	81	32	37	51 miles south by east of Cleveland, Ohio.
1880....	40	50	9	79	53	00	30 miles north of Pittsburg, Pa.
1870....	40	47	13	79	25	85	43 miles northeast of Pittsburg, Pa.
1860....	40	33	1	79	18	50	35 miles due east of Pittsburg, Pa.
1850....	40	41	42	77	25	9	65 miles northwest of Harburg, Pa.

Centers of Production of Corn.

1900....	39	19	33	90	27	6	54 miles southwest of Springfield, Ill.
1890....	39	16	57	90	26	49	55 miles southwest of Springfield, Ill.
1880....	39	28	12	89	7	43	36 miles southeast of Springfield, Ill.
1870....	38	47	13	87	14	15	90 miles southwest of Indianapolis, Ind.
1860....	38	1	54	86	29	4	47 miles west-southwest of New Albany, Ind.
1850....	39	14	54	81	43	38	86 miles east-southeast of Columbus, Ohio.

Centers of Production of Wheat.

Census Year.	North Latitude.			West Latitude.			Approximate Location by Important Towns.
	°	′	″	°	′	″	
1900....	41	39	19	94	59	23	70 miles west of Des Moines, Iowa.
1890....	39	33	53	93	9	18	138 miles south by east of Des Moines, Iowa. (In Missouri.)
1880....	40	36	14	90	30	46	69 miles northwest of Springfield, Ill.
1870....	40	39	17	88	48	40	82 miles northeast of Springfield, Ill.
1860....	39	59	59	86	1	38	18 miles north by east of Indianapolis, Ind.
1850....	40	14	18	81	58	49	57 miles east-northeast of Columbus, Ohio.

Centers of Production of Oats.

1900....	41	39	15	91	8	11	58 miles north of Burlington, Iowa.
1890....	41	10	43	89	46	52	58 miles north-northeast of Peoria, Ill.
1880....	41	2	43	87	13	37	62 miles south-southeast of Chicago, Ill. (In Indiana.)
1870 ...	40	59	13	85	42	46	30 miles west by south of Fort Wayne, Ind.
1860 ...	41	00	38	81	2	5	48 miles southeast of Cleveland, Ohio.
1850....	39	43	22	81	35	29	80 miles east by south of Columbus, Ohio.

POULTRY AND EGG STATISTICS.

[*From Twelfth* (1900)) *Census.*]

No. of farms reporting	5,096,252	Value of eggs produced, 1899	$144,286,158
[1]No. of chickens, including guineas	233.598,085	No. of chickens, 1890	258,871,125
No. of turkeys	6,599,367	No. of chickens, 1880	102,272,135
No. of geese	5,676,863	No. of ducks, 1890	7,544,080
No. of ducks	4,807,358	No. of geese, 1890	8,440,175
Value of all poultry, June 1, 1900	$85,794,996	No. of turkeys, 1890	10,754,060
Value of poultry raised in 1899	136,891,877	Dozens of eggs, 1890	819,722,916
Dozens of eggs produced, 1899	1,293,819,186	Dozens of eggs, 1880	456,910,916

BEES, HONEY AND WAX.

[*From Twelfth* (1900)) *Census.*]

No. of farms reporting	707,261	Pounds of wax produced, 1890	1,166,588
Swarms of bees, June 1, 1900	4,109,626	Pounds of honey produced, 1880	25,743,208
Value of bees, June 1, 1900	$10,186,513	Pounds of wax produced, 1880	1,105,689
Pounds of honey produced, 1899	61,196,160	Pounds of honey produced, 1870	14,702,815
Pounds of wax produced, 1899	1,765,315	Pounds of wax produced, 1870	631,129
Value of honey and wax produced, 1899	$6,664,904	Pounds of honey produced, 1860	24,566,357
Pounds of honey produced, 1890	63,897,327	Pounds of wax produced, 1860	1,322,787

FRUIT AND MINOR CROPS.

[*From Twelfth* (1900)) *Census.*]

Apples (bushels)	175,397,626	Sweet potatoes (bushels)	42,526,690
Peaches "	15,433,623	Hemp crop (pounds)	11,750,630
Pears "	6.625.417	Flaxseed "	20,086,000
Peanuts "	11,964,957	Hop crops (bales of 180 pounds)	208,000

NUTRITIVE VALUE OF CATTLE FOODS.

For nutrient and fattening purposes 100 pounds of cornmeal have a value in pounds approximately as follows:

Equal to 40 pounds of oil cake.
Equal to 60 pounds of beans.
Equal to 76 pounds of wheat.
Equal to 83 pounds of oats.
Equal to 90 pounds of rye.
Equal to 111 pounds of barley.
Equal to 200 pounds of timothy.
Equal to 330 pounds of corn fodder.

Equal to 400 pounds of oats straw.
Equal to 500 pounds of wheat straw.
Equal to 625 pounds of rutabagas.
Equal to 660 pounds of rye straw.
Equal to 700 pounds of carrots.
Equal to 700 pounds of cabbage.
Equal to 900 pounds of beets.
Equal to 1,200 pounds of turnips.

---

[1] Fowls under three months old, June 1, 1900, not numbered.

Dairy Facts and Figures.

Forty-Seven Standard Dairy Rules.

By the Minnesota State Dairy and Food Commission.

Immediately following the rules is this paragraph: "It is the duty of all producers of milk to produce a good, clean, healthful and lawful article. In doing this you will increase the standard of the article and keep out of the courts." The rules are:

1. Read current dairy literature and keep posted on new ideas.

2. Observe and enforce the utmost cleanliness about the cattle, their attendance, the stable, the dairy and all utensils.

3. A person suffering from any disease, or who has been exposed to a contagious disease, must remain away from the cows and the milk.

4. Keep dairy cattle in a room or a building by themselves. It is preferable to have no cellar below and no storage loft above.

5. Stables should be well ventilated, lighted and drained; should have tight floors and walls and be cleanly constructed.

6. Never use musty or dirty litter

7. Allow no strong smelling material in the stable for any length of time. Store the manure outside the cow stable and remove it to a distance as often as practicable.

8. Whitewash the stable once or twice a year. Use land plaster in the manure gutters daily.

9. Use no dry, dusty feed just previous to milking; if fodder is dusty, sprinkle it before it is fed.

10. Clean and thoroughly air the stable before milking.

11. Keep the stable and dairy room in good condition, fresh, airy and clean.

12. Promptly remove from the herd any animal suspected of being in bad health and reject her milk. Never add an animal to the herd until certain that she is free from disease, especially tuberculosis.

13. Do not move cows faster than a comfortable walk while on the way to place of milking or feeding. No savage dogs.

14. Never allow the cows to be excited by hard driving, abuse, loud talking, or unnecessary disturbance. Do not expose them to cold or storm for any length of time.

15. Do not change the feed suddenly.

16. Feed liberally and use only fresh, palatable feed stuffs. In no case should decomposed or mouldy material be used.

17. Provide water in abundance, easy of access, and always pure; fresh, but not too cold. Do not use pond water.

18. Salt should always be accessible.

19. Do not allow any strong flavored food, like garlic, cabbage and turnips, to be eaten, except immediately after milking.

20. Clean the entire body of the cow daily. If hair in the region of the udder is not easily kept clean, it should be clipped.

21. Do not use the milk within twenty days before calving, nor for five days afterward.

22. The milker should be clean in all respects. He should not use tobacco when milking. He should wash and dry his hands just before milking.

23. The milker should wear a clean outer garment, used only when milking, and kept in a clean place at other times.

24. Brush the udder and surrounding parts just before milking and wipe them with a clean damp cloth or sponge.

25. Milk quietly, quickly, cleanly and thoroughly.

26. Cows do not like unnecessary noise or delay. Commence milking at exactly the same hour every morning and evening and milk the cows in the same order.

27. Throw away—but not on the floor, better in the gutter—the first few streams from each teat. This milk is very watery and is of little value, but it may injure the rest.

28. If at milking any part of the milk is bloody or stringy, or unnatural in appearance, the whole mass should be rejected.

29. Milk with dry hands. Never allow the hands to come in contact with the milk.

30. Do not allow dogs, cats or loafers to be around at milking time.

31. If any accident occur by which a pail full or partly full of milk becomes dirty, do not try to remedy this by straining, but reject all the milk and rinse the pail.

32. All persons who milk the cows should have their finger nails cut closely.

33. Remove the milk of every cow at once from the stable to a clean, dry room, where the air is pure and sweet. Do not allow cans to remain in stables while they are being filled. Never keep milk in your stable or near bad odors.

34. Strain the milk through a metal gauze and a flannel cloth or a layer of cotton as soon as it is drawn.

35. Aerate and cool the milk as soon as it is strained. If an apparatus for straining or airing and cooling at the same time is not at hand, the milk should then be cooled to forty-five degrees; sixty degrees if for home use or delivery to a factory, or delivery for domestic use sold by pints or quarts.

36. Never close a can containing warm milk which has not been aired and cooled by turning from one can to the other, stirred or dipped until animal heat is out. If cover is left off the can, a piece of cloth or mosquito netting should be used to keep out insects.

37. If milk is stored, it should be held in tanks of fresh, cold water (renewed daily) in a clean, dry cold room. Unless it is desired to remove cream, it should be stirred with a tin stirrer often enough to prevent forming a thick cream layer. Keep the night's milk under shelter so rain cannot get into the can. In warm weather hold it in a tank of fresh, cold water.

38. Never mix fresh, warm milk with that which has been cooled.

39. Do not allow the milk to freeze.

40. Under no circumstances should anything be added to milk to prevent its souring. Cleanliness is the only preventive needed.

41. All milk should be in good condition when delivered. This may make it necessary to deliver twice a day during the hottest weather.

42. When cans are hauled far, they should be full and carried in a spring wagon.

43. In hot weather cover the cans, when moved in a wagon, with a clean wet blanket or canvas, or covered wagon or covered milk box.

44. Milk utensils for farm or dairy use should be made of metal and have all joints smoothly soldered. Never allow them to become rusty or rough inside. Do not haul waste product back to the farm or dairy in the same cans used for delivering milk. When this is unavoidable insist that the skimmed milk or whey tank be kept clean.

45. Cans used for the return of skim milk or whey should be emptied and cleaned as soon as they arrive at the farm.

46. Clean all the dairy utensils by first thoroughly rinsing them in warm water. Then clean inside and out with a brush and hot water in which a cleaning material is dissolved. Then rinse, and lastly sterilize by boiling water or steam. Use pure water only.

47. After cleaning, keep utensils inverted in pure air and sun, if possible, until wanted for use.

Entire Dairy Industry of the United States.

[*From Twelfth* (1900) *Census.*]

In order to present the dairy industry of the United States as a whole, there are here brought together certain statistics of agriculture and of manufactures. The totals for the census year 1900, thus combined, are as folows:

Cows kept for milk, on farms, number	17,139,674
Cows kept for milk, not on farms, number	973,033
Total number of cows kept for milk	18,112,707
Milk produced, on farms, gallons	7,266,392,674
Milk produced, not on farms, gallons	642,190,676
Total gallons of milk produced	7,728,583,350
Butter, made on farms, pounds	1,071,745,127
Butter, made in factory creameries, pounds	420,126,54
Butter, made in urban dairy establishments, pounds	827,470
Total pounds of butter made	1,492,699,143
Cheese, made on farms, pounds	16,372,330
Cheese, made in factories, pounds	281,972,324
Cheese, made in urban dairy establishments, pounds	662,164
Total pounds of cheese made	299,006,818
Condensed milk, produced, pounds	186,921,787
Value of total butter made, at 18 cents	$268,685,845
Value of total cheese, at 9 cents	26,910,614
Value of total condensed milk	11,888,792
Value of total cream sold	4,435,444
Value of total sundry factory products	1,261,359
Value of total milk consumed	277,645,100
Aggregate value of dairy products United States	$590,827,154

Comparison of Best Dairy Cows.

A comparison of one-year records of four Missouri dairy herds each composed of the breeds mentioned below, resulted in the following figures. The figures for cost of feed include $1.00 per month for pasturage value.

RECORD ONE YEAR, BEST THREE SHORTHORNS.

9,896 pounds milk	474 pounds butter	Cost feed, $27.38
9,326 pounds milk	449 pounds butter	Cost feed, 23.52
8,046 pounds milk	381 pounds butter	Cost feed, 24.82

COMPARISON OF BEST DAIRY COWS—(Continued).

RECORD OF POOREST THREE SHORTHORNS.		
3,059 pounds milk	129 pounds butter	Cost feed, $23.87
2,833 pounds milk	134 pounds butter	Cost feed, 21.30
2,796 pounds milk	125 pounds butter	Cost feed, 18.84
BEST RED POLL.		
7,225 pounds milk	361 pounds butter	Cost feed, $25.32
POOREST RED POLL.		
5,249 pounds milk	236 pounds butter	Cost feed, $25.24
BEST JERSEY.		
6,523 pounds milk	532 pounds butter	Cost feed, $26.26
POOREST JERSEY.		
4,087 pounds milk	236 pounds butter	Cost feed, $18.54
BEST HOLSTEIN.		
12,111 pounds milk	538 pounds butter	Cost feed, $29.89
POOREST HOLSTEIN.		
6,657 pounds milk	246 pounds butter	Cost feed, $21.71

What a Good Dairy Cow Will Do in a Year.

ITEMS.	Cost of Production per cow.
Interest on original cost of cow, $35.00	$2.10
Feed, care, stabling, etc.	48.00
Annual deterioration of cow	2.00
Total cost	$52.10
Yearly returns from one cow:	
Value of increase (calf)	$7.50
650 gallons of milk at sixteen cents per gallon	104.00
Total	$111.50
Showing a profit of	59.40
Value of increase:	
Calf	$7.50
275 pounds of butter at twenty-one cents per pound	57.75
600 gallons of skim milk, etc., at two cents per gallon	12.00
Total	$77.25
Showing a profit of	$25.15

Standards for Dairy Products.

The standards for dairy products are clearly defined in some of the States of the Union. Others have general laws against adulterated or imitation dairy products. The definite standards are in brief as follows:

California.—CHEESE: Full-cream cheese, not less than 30 per cent butter fat. Half-cream cheese, not less than 15 per cent butter fat. Skim cheese must be made of pure skim milk. Edam, Limberger and Swiss cheese not included.

Colorado.—CHEESE: Full-cream cheese, not less than 35 per cent butter fat. Skim cheese, less than 35 per cent butter fat. Imitation cheese classed as all cheese, into which foreign fat or other oleagenous substance has been introduced.

District of Columbia.—MILK: 87.5 per cent water. 3.5 per cent fat, 9 per cent solids, not fat.

CREAM: 20 per cent butter fat.

BUTTER: 12 per cent water, 5 per cent salt, 83 per cent fat.

SKIM MILK: 9.3 per cent total solids.

Georgia.—MILK: 3.5 per cent fat, 8.5 per cent solids not fat.

Illinois.—MILK: 88 per cent water, 12 per cent milk solids, 3 per cent fat.

Indiana.—MILK: 3 per cent fat, 9 per cent solids, exclusive of fat; 88 per cent water.

BUTTER: 80 per cent pure milk fats, 15 per cent water, 6 per cent salt.

CHEESE: Skimmed cheese, less than 10 per cent milk fats.

OLEOMARGARINE: Considered adulterated if it contain in excess of 15 per cent water, or 6 per cent salt.

Iowa.—Milk: Milk containing less than 12½ per cent milk solids, or 3 per cent fat, shall be deemed skimmed milk.

Cream: 15 per cent butter fat.

Maine.—Milk: 88 per cent water, 12 per cent solids, 3 per cent fat. By gravimetric analysis.

Maryland.—Milk: 87½ per cent water, 12½ per cent solids, 3½ per cent fat.

Condensed Milk: Must be made of standard milk and contain 12.5 per cent milk solids, of which 3.5 per cent shall be butter fat.

Massachusetts.—Milk: 13 per cent milk solids, 9.3 per cent milk solids, exclusive of fat; 3.7 per cent fat, except in the months of April, May, June, July, August and September; 12 per cent milk solids, 9 per cent milk solids, exclusive of fat; 3 per cent fat.

Skimmed Milk: 9.3 per cent milk solids.

Michigan.—Milk: 87.5 per cent water, 12.5 per cent milk solids, 3 per cent fat, at a specific gravity, 1.029 to 1.033, at a temperature of 60 degrees Fahrenheit.

Minnesota.—Milk: 87 per cent water, 13 per cent milk solids, 3.5 per cent fat.

Cheese: Minnesota full-cream cheese, 45 per cent fat. Skim cheese, less than 45 per cent fat.

Missouri.—Cheese: Full-cream cheese must be made of milk which contains 3 per cent fat. Skim cheese, of milk containing less than 3 per cent fat.

New Hampshire.—Milk: 87 per cent water, 13 per cent milk solids.

New Jersey.—Milk: 88 per cent water, 12 per cent milk solids.

North Dakota.—Milk: 12 per cent solids, 3 per cent fat.

Cream: 15 per cent fat.

New York.—Milk: 88 per cent water, 12 per cent milk solids, 3 per cent fat.

Condensed Milk: Milk solids in condensed milk must be equivalent to 12 per cent solids in standard milk, 25 per cent of which must be fat.

Ohio.—Milk: 88 per cent water, 12 per cent milk solids, 25 per cent of which shall be fat, except in May and June; 11.5 per cent milk solids.

Condensed Milk: Must be made of standard milk.

Butter: 80 per cent fat.

Cheese: Full-milk cheese, 20 per cent fat. Filled cheese, over 10 per cent fat. Skim cheese, less than 10 per cent fat.

Oregon.—Milk: 88 per cent water, 3 per cent fat, 8 per cent solids other than fat. Specific gravity, after removal of cream, 1.038.

Cream: 20 per cent butter fat.

Condensed Milk: 12 per cent milk solids, 25 per cent of which is fat in milk.

Cheese: 40 per cent butter fat.

Butter: 14 per cent water.

Pennsylvania.—Milk: 87.5 per cent water, 12.5 per cent solids, 3 per cent fat. Specific gravity at 60 degrees Fahrenheit, between 1.029 and 1.033.

Skim Milk: 6 per cent cream by volume, 2.5 per cent fat by weight. Specific gravity, at 60 degrees Fahrenheit, between 1.032 and 1.037.

Cheese: Full-cream cheese, 32 per cent fat. Three-fourths cream cheese, 24 per cent fat. One-half cream cheese, 16 per cent fat. One-fourth cream cheese, 8 per cent fat. Skimmed cheese, 8 per cent fat. Fancy, cottage or pot cheese exempt.

Rhode Island.—Milk: 88 per cent water, 12 per cent solids, 2.5 per cent fat.

Skimmed Milk: 2.5 per cent fat.

South Carolina.—Milk: 3 per cent fat, 8.5 per cent solids other than fat.

Utah.—Skim Milk: 9 per cent solids, exclusive of fat.

Cheese: Skim-milk cheese must not be less than 9 or more than 11 inches in diameter, and not less than 9 inches high.

Vermont.—Milk: 12.5 per cent solids, 9.5 per cent solids, exclusive of fat, except in May and June, 12 per cent solids; 4 per cent fat as a paying basis at factories. Milk sold by wine measure.

Washington.—Milk: 8 per cent solids other than fat, 3 per cent fat.

Cheese: Full-cream cheese, 30 per cent fat. Skim cheese, less than 30 per cent fat. Filled cheese or cheese with less than 15 per cent fat is prohibited.

Cream: 18 per cent fat.

Wisconsin.—Milk: 3 per cent fat.

Cheese: Skim-milk cheese must be made 10 inches in diameter and 9 inches high.

Canada.—Milk: 13 per cent solids, 3.75 per cent of which must be dry butter fat for delivery to butter factories.

Pasteurization and Sterilization.

Many years ago Pasteur turned his knowledge of the effect of heat in delaying fermentation to practical account in combating some of the undesirable fermentations of wine and beer, with such success that the process has been called pasteurization in his honor. Our present methods of canning fruit and vegetables are probably the result of the early discoveries. The application of heat in this way had become such a household matter by the time the process received this special title that the name was not carried over to the ordinary household heating and a can labeled "Pasteurized Peaches" would to-day be quite a puzzle, although from its manner of preparation it can justly claim that title.

Effect on Germ Life.—Pasteurization, then, is simply the application of heat to check the activity of fermentation. The temperature used depends upon the substance treated and the end to be attained. The effect upon germ life will vary both with the degree of heat and the length of exposure. The same results can be secured in the killing of *Bacillus tuberculosis* when the milk is heated at 60° C. (140° F.) for thirty minutes or at 85° C. (185° F.) for a very short time.

Sterilization.—Sterilization is a good word that has been debased by popular usage. In its true sense it means the total destruction of life. It is often used to mean anything from a simple warming to a thorough boiling. Such words are best used in their true sense or not used at all. It should be remembered that some of the organisms which are often found in milk will successfully withstand boiling for some hours and the sterilization, in the true sense, of any commercial quantity of milk at a single heating is a practical impossibility unless temperatures above that of boiling water are used.

GLOSSARY OF TERMS USED IN MILK ANALYSIS.

Bacillus (plural bacilli), a rod-shaped organism.

Bacteria (singular bacterium), the smallest forms of vegetable organisms, composed of a single cell.

Centrifugalize, to separate suspended particles in fluids by means of a centrifugal machine.

Colony, an aggregation of bacteria that have developed from a single organism in a solid culture medium.

Cubic centimeter, a volume equal to 1-960 part of a quart.

Incubator, a double-walled chamber, which is maintained at a uniform temperature, in which the cultures of bacteria are placed for cultivation.

Inoculation, the act of transferring bacteria from one medium to another, or from a medium into the tissues of an animal.

Leucocytes, the white corpuscles of the blood of man and the higher animals.

Micrococcus (plural micrococci), bacteria that are spherical in shape.

Micro-organism, any microscopic form of life, but usually referring to the class bacteria; a bacterium.

Organism, any form of life that maintains an independent existence.

Pathogenic, having the power of producing disease.

Pus cells, dead leucocytes and other cells contained in pus.

Staphylococcus (plural staphylococci), spherical bacteria that group themselves in irregular bunches; the bacteria which are concerned in the production of inflammation, abscesses, carbuncles, etc.

Sterile, free from all kinds of microscopic life.

Sterilize, to render free from microscopic life; usually brought about by means of heat.

Streptococcus (plural streptococci), spherical bacteria which group themselves in the form of chains.

Exports of Dairy Products.

The Secretary of Agriculture in his report for 1902 says:—"The value of the exports of animals and animal products for the year ended June 30, 1902, amounted to the large sum of $244,733,062. Of this amount, $44,871,684 was the value of the animals, $192,756,608 of the meat and meat products, and $7,104,770 of the dairy products.

"Experimental exports of dairy products have been made to Japan, China, Cuba and Porto Rico. This method of making known the better grades of these products has resulted in somewhat increased sales by merchants in San Francisco and New York and some parties elsewhere; but inadequate and unsuitable transportation facilities, the destructive climates of some of the markets referred to, and other unfavorable conditions prevent any rapid increase in this trade. The results indicate, however, that the markets of Japan may be further cultivated.

"Under act of Congress of March 2, 1902, the dairy division of the Bureau inaugurated a system of inspection of dairy products offered for export, affixing stamps to the same, and certifying to the character and quality of the articles. Domestic prices, however, have been so high as to prevent any considerable export of high-grade goods other than condensed milk and cream."

A Hundred Years of National Progress.

[*National Bureau of Statistics.*]

AREA, POPULATION, INDUSTRIES.	1800.	1810.	1820.	1830.	1840.
Area (square miles)[1]	827,844	1,999,775	2,059,043	2,059,043	2,059,043
Population	5,308,483	7,239,881	9,658,453	12,866,020	17,069,453
Population per square mile	6.41	3.62	4.68	6.25	8.29
Wealth (dollars)[2]					
Wealth per capita (dollars)					
Debt per capita, less cash in Treasury (dollars)					
Circulation of money (dollars)					
Circulation per capita (dollars)					
Deposits in savings banks (dollars)			1,138,576	6,973,304	14,051,520
Depositors in savings banks (number)			8,635	38,085	78,701
Deposits in national banks (dollars)					
Receipts—Net ordinary (dollars)	10,848,749	9,384,214	17,840,670	24,844,117	19,480,115
Customs (dollars)	9,080,933	8,583,309	15,005,612	21,922,391	13,499,502
Internal revenue (dollars)	809,397	7,431	106,261	12,161	1,682
Expenditures—Net ordinary (dollars)	7,411,370	5,311,082	13,134,531	13,229,533	24,139,920
War (dollars)	2,560,879	2,294,324	2,630,392	4,767,129	7,095,267
Navy (dollars)	3,448,716	1,654,244	4,387,990	3,239,429	6,113,897
Pensions (dollars)	64,131	83,744	3,208,376	1,363,297	2,603,562
Public debt (dollars)	82,976,294	53,173,218	91,015,566	48,565,407	3,573,344
Interest on public debt (dollars)	3,402,601	3,163,671	5,151,004	1,912,575	174,598
Imports of merchandise (dollars)	91,252,768	85,400,000	74,450,000	62,720,956	98,258,706
Imports of merchandise per capita (dollars)					
Exports of merchandise (dollars)	70,971,780	66,757,970	69,691,669	71,670,735	123,668,932
Exports of merchandise per capita (dollars)					
Imports of silk, raw (pounds)					
Rubber, crude (pounds)					
Iron and steel, and manufactures of (dollars)				6,346,237	8,192,093
Exports of iron and steel, and manufactures of (dollars)		139,000	57,000	309,473	1,104,455
Agricultural products (dollars)		33,502,000	41,657,673	46,977,332	92,548,067
Manufactures (dollars)		1,917,000	2,019,000	6,258,131	11,705,039
Farm animals, total value of (dollars)					
Cattle (number)					
Horses (number)					
Sheep (number)					
Mules (number)					
Swine (number)					
Production of gold (dollars)		2,463	73,112	564,950	11,697,829
Silver (dollars)					
Coal (tons)			365	179,734	864,379
Petroleum (gallons)					
Pig iron (tons)			20,000	165,000	286,903
Steel (tons)					
Copper (tons)					100
Wool (pounds)					35,802,114
Wheat (bushels)					
Corn (bushels)					
Cotton (bales)	155,556	340,000	606,061	976,845	2,177,835
Sugar (tons)					
Sugar consumed (tons)					
Cotton taken by mills (bales)					
Cotton exported (pounds)				298,459,102	743,941,061
Railways in operation (miles)				23	2,818
Passengers carried (number)					
Freight carried one mile (tons)					
Freight rates per ton per mile (cents)					
Passenger cars (number)					
Freight cars (number)					
American vessels built (tons)	106,261	127,575	51,394	58,560	121,204
In foreign trade (tons)	669,921	984,269	619,048	576,475	899,765
In domestic trade (tons)	301,919	440,175	660,065	614,508	1,280,999
In commerce of Great Lakes (tons)			3,500	11,106	54,199
Vessels passing through the Sault Ste. Marie Canal (tonnage)					
Post-offices (number)	903	2,300	4,500	8,450	13,468
Receipts of Post-Office Department (dollars)	280,804	551,684	1,111,927	1,850,583	4,543,522
Telegraph messages sent (number)					
Newspapers and periodicals published (number)		359		861	1,403
Public schools, salaries paid (dollars)					
Patents issued (number)					1,465
Immigrants arrived (number)			8,385	23,322	84,066

---

[1] Exclusive of Alaska and islands belonging to the United States.
[2] True valuation of real and personal property.

A HUNDRED YEARS OF NATIONAL PROGRESS—(Continued).

[*National Bureau of Statistics.*]

AREA, POPULATION, INDUSTRIES.	1850.	1860.	1870.	1880.	1890.	1900.
Area (square miles)[1]	2,980,959	3,025,600	3,025,600	3,025,600	3,025,600	3,025,600
Population	23,191,876	31,443,321	38,558,371	50,155,783	62,622,250	76,303,387
Population per square mile	7.78	10.39	12.74	16.57	20.70	25.22
Wealth (dollars)[2]	7,135,780,000	16,159,616,000	30,068,518,000	42,642,000,000	65,037,091,000	94,300,000,000
Wealth per capita (dollars)	307.69	513,93	779.83	850.20	1,038.57	1,235.86
Debt per capita, less cash in Treasury (dollars)	....	1.91	60.46	38.27	14.22	14.52
Circulation of money (dollars)	....	435,407,252	675,212,794	973,382,228	1,429,251,270	2,055,150,998
Circulation per capita (dollars)	....	13.85	17.50	19.41	22.82	26.93
Deposits in savings banks (dollars)	43,431,130	149,277,504	549,874,358	819,106,973	1,524,844,506	2,449,547,885
Depositors in savings banks (number)	251,354	693,870	1,630,846	2,335,582	4,258,893	6,107,083
Deposits in national banks (dollars)	....	....	507,368,619	1,006,452,853	1,485,095,856	2,508,248,558
Receipts—Net ordinary (dollars)	43,592,889	56,054,600	395,959,834	333,526,501	403,080,983	567,240,852
Customs (dollars)	39,668,686	53,187,512	194,538,374	186,522,065	229,668,585	233,164,871
Internal revenue (dollars)	....	....	184,899,756	124,009,374	142,606,706	295,327,927
Expenditures—Net ordinary (dollars)	37,165,990	60,056,755	164,421,507	169,090,062	261,637,203	447,553,458
War (dollars)	9,687,025	16,472,203	57,655,675	38,116,916	44,582,838	134,774,768
Navy (dollars)	7,904,725	11,514,650	21,780,230	13,536,985	22,006,206	55,953,078
Pensions (dollars)	1,866,886	1,100,802	28,340,202	56,777,174	106,936,855	140,877,316
Public debt (dollars)	63,452,774	64,842,288	2,480,672,428	2,120,415,371	1,552,140,205	2,136,961,092
Interest on public debt (dollars)	3,782,393	3,144,121	129,235,498	95,757,575	36,099,284	40,160,333
Imports of merchandise (dollars)	173,509,526	353,616,119	435,958,408	667,954,746	789,310,409	849,941,184
Imports of merchandise per capita (dollars)	....	....	11.06	12.51	12.35	10.88
Exports of merchandise (dollars)	144,375,726	333,576,057	392,771,768	835,638,658	857,828,684	1,394,483,082
Exports of merchandise per capita (dollars)	....	....	9.77	16.43	13.50	17.96
Imports of silk, raw (pounds)	....	....	583,589	2,562,236	7,347,909	13,043,714
Rubber, crude (pounds)	....	....	9,624,098	16,826,099	33,842,374	49,377,138
Iron and steel, and manufactures of (dollars)	17,665,398	21,526,594	32,665,454	53,714,008	41,679,591	20,478,728
Exports of iron and steel, and manufactures of (dollars)	1,911,320	5,703,024	11,002,902	12,605,576	25,542,208	121,913,548
Agricultural products (dollars)	108,605,713	256,560,972	361,188,483	685,961,091	629,820,808	835,858,123
Manufactures (dollars)	21,541,422	39,803,080	68,279,764	102,856,015	151,102,376	433,851,756
Farm animals, total value of (dollars)	545,180,516	1,089,329,915	1,822,328,377	1,576,917,556	2,418,766,028	[3]2,042,650,813
Cattle (number)	....	....	25,484,100	33,258,000	52,801,907	43,902,414
Horses (number)	....	....	8,248,800	11,201,800	14,213,837	13,537,524
Sheep (number)	....	....	40,853,000	40,765,900	44,336,072	41,883,065
Mules (number)	....	....	1,179,500	1,729,500	2,331,027	2,086,027
Swine (number)	....	....	26,751,400	34,034,100	51,602,780	....
Production of gold (dollars)	50,000,000	46,000,000	50,000,000	36,000,000	32,845,000	79,171,000
Silver (dollars)	50,000	150,000	16,000,000	39,200,000	70,465,000	74,533,495
Coal (tons)	3,358,899	18,513,123	32,863,000	63,822,830	140,866,931	240,965,917
Petroleum (gallons)	....	21,000,000	220,951,290	1,104,017,166	1,924,552,224	2,661,233,568
Pig iron (tons)	563,755	821,223	1,665,179	3,835,191	9,202,703	13,789,242
Steel (tons)	....	....	68,750	1,247,335	4,277,071	10,188,329
Copper (tons)	650	7,200	12,600	27,000	115,966	270,588
Wool (pounds)	52,516,959	60,264,913	162,000,000	232,500,000	276,000,000	288,636,621
Wheat (bushels)	....	....	235,884,700	498,549,868	399,262,000	522,229,505
Corn (bushels)	....	....	1,094,255,000	1,717,434,543	1,489,970,000	2,105,102,516
Cotton (bales)	2,333,718	4,861,292	3,114,592	5,761,252	7,311,322	9,436,416
Sugar (tons)	....	190,040	46,800	92,802	136,503	149,229
Sugar consumed (tons)	....	....	....	956,784	1,476,377	2,219,847
Cotton taken by mills (bales)	595,000	979,000	857,000	1,795,000	2,325,000	3,644,000
Cotton exported (pounds)	1,026,602,269	1,767,686,338	958,558,523	1,822,061,114	2,471,799,853	3,100,583,188
Railways in operation (miles)	9,021	30,626	52,922	93,262	166,654	194,321
Passengers carried (number)	....	....	....	....	520,439,082	584,695,935
Freight carried one mile (tons)	....	....	....	....	79,192,985,125	141,162,109,413
Freight rates per ton per mile (cents)	....	....	....	....	.93	.75
Passenger cars (number)	....	....	....	12,788	21,664	26,786
Freight cars (number)	....	....	....	544,185	1,099,205	1,358,467
American vessels built (tons)	279,255	214,798	276,953	157,410	294,122	393,790
In foreign trade (tons)	1,585,711	2,546,237	1,516,800	1,352,810	946,695	826,694
In domestic trade (tons)	1,949,743	2,807,631	2,729,707	2,715,224	3,477,802	4,338,145
In commerce of Great Lakes (tons)	198,266	467,774	684,704	605,102	1,063,063	1,565,587
Vessels passing through the Sault Ste. Marie Canal (tonnage)	....	403,657	690,826	1,734,890	8,454,435	22,315,834
Post-offices (number)	18,417	28,498	28,492	42,989	62,401	76,688
Receipts of Post-Office Department (dollars)	5,499,985	8,518,067	19,772,221	33,315,479	60,882,097	102,354,579
Telegraph messages sent (number)	....	....	9,157,646	29,215,509	55,878,762	63,167,783
Newspapers and periodicals published (number)	2,526	4,051	5,871	9,723	16,948	20,806
Public schools, salaries paid (dollars)	....	....	37,832,566	59,942,972	91,836,484	136,031,838
Patents issued (number)	6,981	26,642	98,460	223,211	418,665	640,167
Immigrants arrived (number)	310,004	150,237	387,203	457,257	455,302	448,572

On January 31, 1903, the aggregate of interest bearing debt was $914,541,330; debt bearing no interest, $396,516,296; debt on which interest has ceased since maturity, $1,230,910; certificates and treasury notes offset by an equal amount of cash in the treasury $886,877,069; total, $2,199,159,595.

---

[1] Exclusive of Alaska and islands belonging to the United States.
[2] True valuations of real and personal property.
[3] Exclusive of swine.

Light-House System and Service of the United States

BY CHIEF OF THE LIGHT-HOUSE BOARD

Workings *of the* Weather Bureau

WITH WEATHER LAWS AND FORECASTS

Lightning and Electricity in the Air

BY THE PROFESSOR OF METEOROLOGY
IN THE WEATHER BUREAU

THE NATIONAL LIGHT-HOUSE ESTABLISHMENT

EMBRACING

Its Rise and Growth
Cost to the United States
Early Light-Houses
Commercial Legislation
Light-House Construction
Material of Light-Houses
Styles of Structure
Lake and Ocean Lights
Light Vessels
Our System of Buoys
River Light System
Illuminating System
Illuminating Materials
Fog Signals, Various Kinds
Difficulties with Fog Signals
Personnel of the Light-House System
Light-House Dues
Light-House Administration
Light-House Districts
Light Stations in Each District

WORKINGS OF THE WEATHER BUREAU

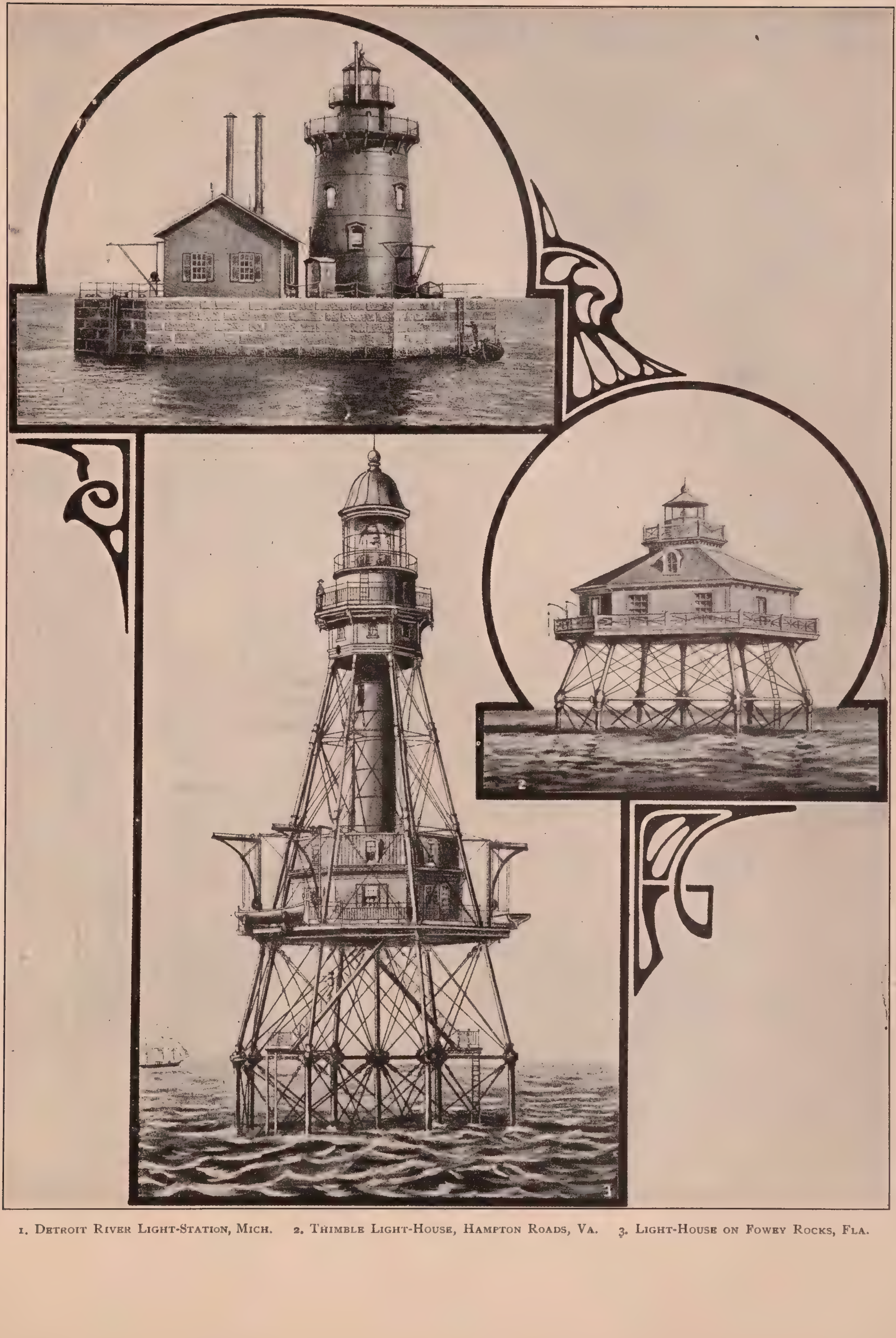
Storm Warning Flags
Steam-Whistle Signals
Uses of Thermometers
Weather Laws and Forecasts
Temperature and Moisture Measures
Wind Gauges
What the Winds Tell
Losses by Storms

LIGHTNING and ELECTRICITY IN THE AIR

Of Thunderstorms
Lightning Strokes
Chances of Being Struck
Death Rate per Million
Regions of Greatest Mortality
Seasons for Thunderstorms
Kinds of Thunderstorms
Effects of Thunderstorms
Treatment of Lightning Strokes
Average Temperatures

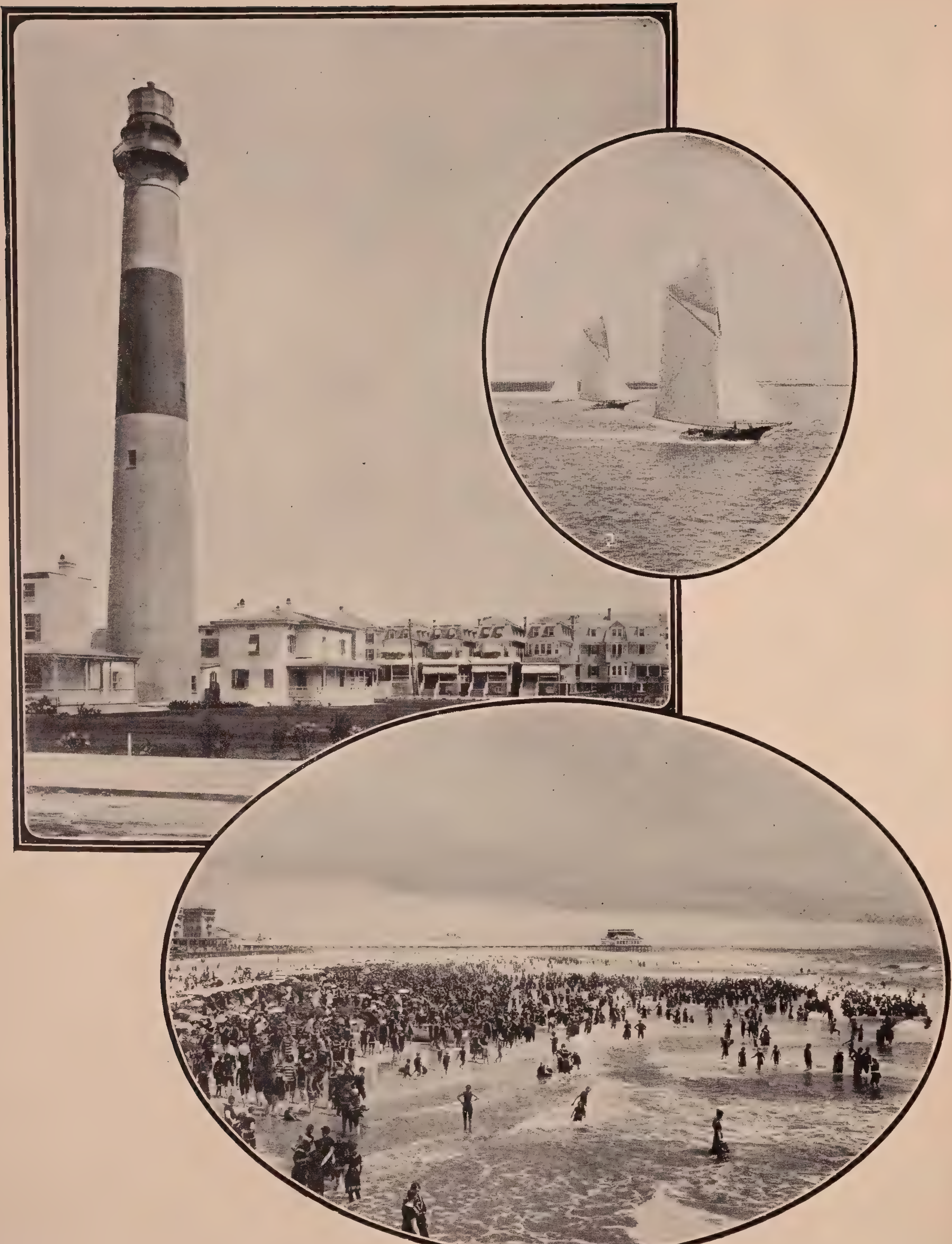
The Light-House is no less interesting in history than thrilling in story. The Nation has no nobler humanitarian chapter. Its supplement—The Weather Bureau and the Electric Storm—comes right down to our very homes

TYPES OF LIGHTHOUSES.



1. Detroit River Light-Station, Mich. 2. Thimble Light-House, Hampton Roads, Va. 3. Light-House on Fowey Rocks, Fla.

ATLANTIC CITY.



1. Light House. 2. Sailing in the Inlet. 3. Bathing.

Light-House System and Service of the United States.

Its Origin and Growth.

Present and Future.—Science has made wonderful progress during the last quarter of a century, but in no way more than in pharology, or science of light-house construction. The light-house engineer has marked the spread of commerce and civilization by the evidences of his skill. These are now so highly appreciated that the time must come when all the prominent points of the coasts of the world will be marked with beacons by day and with lights by night, thus transforming them from dangers to guardian monitors for the mariner.

Early History of Light-Houses.—It is impossible to say when, in the age of man, guiding lights first came into use. It is claimed by some that Homer refers to light-houses in these lines:

> So to night-wandering sailors pale with fears
> Wide o'er the watery waste a light appears,
> Which on the far-seen mountain blazing high
> Streams from lonely watch-tower to the sky.
> —*Pope's Iliad*, xix: 405–9.

First Historic Light-House.—It is also claimed that Virgil had knowledge of light-houses, and that he stated that one was placed on a tower of the temple to Apollo, on Mount Leucas, "the light of which, visible far out at sea, warned and guided mariners." Others say that the Colossus of Rhodes, erected about 300 B. C., showed from his uplifted hand a signal light. But the famous Pharos of Alexandria, built about 285 B. C., is the first light of undoubted record. Other lights were shown from towers at Ostia, Ravenna, Apamea, and other places mentioned by Pliny, Suetonius and Byzantinus. The light-house at Corunna, Spain, is believed to be the oldest existing light-tower. This was built in the reign of Trajan, and in 1634 it was reconstructed.

Oldest Existing Light-House.—It is well for us, who owe so much to old Spain, to remember that not the least of the things for which we must be grateful is this example which she still retains for our encouragement. Let us aim to transmit the light she has brought down to us as far into the future as she has brought it from the past. While Spain has the oldest existing light-house, England and France each have towers erected by their Roman conquerors, which were used as light-houses, and the ages from thence down to us have other towers to show that the art of building for the benefit of the fire-worshipers of commerce has lost nothing with the lapse of time.

The New World Lesson.—Europe having at one time the commerce of the world, naturally provided so well for it that its light-house system, especially in its western part, leaves little to be desired. The New World has taken a lesson from the Old, and has welcomed all commerce by its beacon fires. Where much has been given much has been required, and light-houses have sprung up where they have been most needed. Commerce has been bold and has searched out the dark corners of the world, but it stays longest where it is most welcomed and best entertained. Where there are light-houses there come ships; some may come where there are no lights, but with the welcome rays come the many and the richly laden.

Theory of Coast Lighting.—The theory of coast lighting is that each coast shall be so set with towers that the rays from their lights shall meet and pass each other, so that a vessel on the coast shall never be out of sight of a light, and that there shall be no dark spaces between lights. This is the theory upon which the United States is proceeding, and it plants lights where they are most needed upon those lines. Hence from year to year the length of the dark spaces on its coasts is lessened or expunged entirely, and the day will come when all its coasts will be defined from end to end by a band of light by night and by well-marked beacons by day.

Beginnings of Our Light-House System.

First Records.—The light-house system of this country commenced with its commerce. There is little doubt but that the early colonists recognized the necessity for beacons with which to guide their home-returning shallops to a safe anchorage, and that they took effective means to show the English and Dutch ships which should make their landfall at night the safe way to their harbor. But the first authentic evidence of this being done at the public charge is the record of the proceedings of the general court of the Province of Massachusetts Bay, from which it appears that on March 9, 1673, a petition came from the citizens of Nantasket, Massachusetts (now Hull), for the lessening of their taxes, because of the material and labor they had expended, over and above their proportion, in building the beacon on Point Allerton, the most prominent headland near the entrance to Boston harbor. At that session also it appears that bills from Nantasket were paid for making and furnishing "fier-bales of pitch and ocum for the beacon at Allerton Point," which "fier-bales" were burned in an iron grate or basket on the top of a beacon, for the building of which Nantasket had furnished 400 boat-loads of stone.

Our First Light-House.—The first light-house on this continent was built at the entrance to Boston Harbor, on Little Brewster Island, in 1715-16, at a cost of £2,285 17*s.* 8½*d.* It was erected by the order and at the expense of the general court of the Province of Massachusetts Bay, and it was supported by light-dues of 1*d.* per ton on all incoming and outgoing vessels, except coasters, levied by the collector of imports at Boston.

The Government Takes Hold.—The maritime colonies followed the example of Massachusetts, and when the United States, by the act of August 7, 1789, accepted the cession of the title to, and joint jurisdiction over, the light-houses on the coast, and agreed to maintain them thereafter, they were eight in number, and comprised the following lights, all of which are still in existence, though so greatly improved that they are the same only in purpose and in site: Portsmouth Harbor Light, New Hampshire; Boston Light, on Little Brewster Island; the Gurnet Light, near Plymouth, Massachusetts; Brant Point Light, on Nantucket, Massachusetts; Beaver Tail Light, on Conanicut Island, Rhode Island, in Narragansett Bay; Sandy Hook Light, New Jersey, entrance to New York Harbor; Cape Henlopen, Delaware, at the entrance to Delaware Bay; Charleston Main Light, on Morris Island, entrance to the harbor of Charleston, South Carolina.

Light-House Control.—When the lights came into the possession of the Federal Government, they were placed under the direction of the Secretary of the Treasury, who seems to have given them his personal attention, but to have taken no important action without the direct approbation of the President.

As an instance of this, the following letter, the original of which hangs in the office of the Light-House Board, is here given:

> Mount Vernon, October 12, 1790.
>
> Sir: I have received your letter of the 5th instant. The public service requiring the arrangement which you have made relative to the light-houses of Newport and Portland, they are perfectly agreeable to me, and receive my approbation. I am, sir, your most obedient servant,
>
> George Washington.
>
> To Alexander Hamilton, Esq.,
> *Secretary of the Treasury of the United States.*

A New Control.—On May 8, 1792, the office of Commissioner of Revenue was established, and the superintendence and control of the lights were devolved upon him. On April 6, 1802, this office was abolished, when the then Secretary of the Treasury, Mr. Gallatin, resumed the control of the lights. Their management remained in the Secretary himself, who gave it much of his personal attention, until July 24, 1813, when, on the re-establishment of the office of Commissioner of the Revenue, the control of the lights became again a part of his work. That office was a second time abolished by the act of December 23, 1817, which went into operation on July 1, 1820, when all its duties, including those of superintending the lights, were devolved on the Fifth Auditor of the Treasury. During these thirty years that had elapsed since the lights had come under the control of the General Government, the number had been increased, under Congressional enactment, from 8 to 55; and each seems to have been built to meet immediate and pressing local want, and without reference to any general system.

Growth of the Establishment.—The Fifth Auditor, Mr. Stephen Pleasanton, who was popularly known as the general superintendent of lights, accepted that duty in 1820, and continued in charge until 1852. During this time the establishment was increased from fifty-five light-houses and a few buoys to three hundred and twenty-five light-houses and light-ships, with numerous buoys, monuments, and other aids to navigation.

Duties of Superintendent.—The general superintendent of lights was the officer who executed the orders of Congress by advertising for proposals to certain discretionary power. Congress, in appropriating funds for a light, usually fixed its location, its kind, and its order. He formulated the orders of Congress by advertising for proposals to build the kind of light-house desired, and signed the contract on the part of the Government. The collector of customs nearest to the location of the proposed light was usually made the local superintendent, and after he had selected the exact site was furnished with a plan of the building, and was authorized to employ a suitable mechanic as overseer, who was to make sure of the quality of the material and labor used. Payments were made only on the certificate of this overseer. The local superintendent in Washington was expected to visit each light-house in his district yearly, in June, if possible, and to report to the general superintendent in Washington the condition of each, and this was often done.

Early Supply Methods.—The light-houses were kept in repair by contract; and it appears from the reports of the general superintendent that the repairs were, in his opinion, promptly and effectually made. The methods of supplying the lights varied, apparently, with their increase in number. When Mr. Gallatin was Secretary of the Treasury, oil and money to purchase other supplies were furnished to a contractor, who made a yearly visit to each light, to keep the illuminating apparatus in repair, and, at the same time, supplied the illuminant, wicks, chimneys and cleaning stores. This was not difficult when there were but some fifty lights; but Mr. Pleasanton found, as their number increased, a new method of supply was necessary. He accordingly advertised for proposals to furnish all the supplies needed for the whole Light-House Establishment, and to keep all the illuminating apparatus in complete repair for a given sum per lamp per year, and made a contract with the lowest bidder to continue for five years, paying him $35.87 per lamp per year to supply everything necessary for keeping up the lights. The contractors were also to visit each light-house annually, and report on its condition, specifying the repairs needed to each structure, as well as to its illuminating apparatus; and they were also to report on the conduct and ability of the keepers. And the keepers were to report on the quality of the supplies furnished, and on the condition of the illuminating apparatus and buildings. This plan Mr. Pleasanton reported as working satisfactorily to the Government.

Complaints of the System.—But complaints began to come from various shipping districts that the light-house system was defective in the respect that it had outgrown the possibility of proper supervision by any single head or individual. Much sharp discussion ensued, and as a result there was inserted in the appropriation act of 1838, a clause authorizing the President to appoint a Commission to report on the subject. The report was held in suspense.

Reorganization of the System.—A subsequent report was referred by the Senate to its Committee on Commerce on February 5, 1852, but was taken up for action in the House of Representatives, which embodied the plans it suggested in an appropriation bill, which passed both Houses, and was approved on August 31, 1852, by the President. This organic act, constituting the Light-House Board as it now exists, is contained in the last nine sections of the act providing for the civil and diplomatic expenses of the Government for the year ending June 30, 1853. This act required the President, immediately after its passage, to appoint two officers of the Navy of high rank, two engineer officers of the Army, and two civilians of high scientific attainments, whose services might be at the disposal of the President, an officer of the Navy and an officer of the engineers of the Army as secretaries who should constitute the United States Light-House Board; the Board to be attached to the office of the Secretary of the Treasury, and under his superintendence to discharge all the administrative duties relating to the construction, illumination, inspection and superintendence of light-houses, light-vessels, beacons, buoys, seamarks and their appendages, and embracing the security of foundations of existing works, procuring illuminating and other apparatus, supplies, and materials of all kinds for building and rebuilding, and keeping in good repair buildings, vessels, and buoys of the United States. The Secretary of the Treasury was to be president, but the Board was to elect from its own number a member to act as chairman in the president's absence. The Board was to meet quarterly, and as much oftener as might be found necessary; and to it were to be transferred all the archives, books, documents, models, drawings, apparatus, returns, etc., belonging to the Light-House Establishment of the United States, together with the clerical force employed on light-house work.

Requirements of the New Board.—The Board was required to arrange the Atlantic, Gulf, and Pacific Coasts of the United States into twelve light-house districts, and an officer of the Army or Navy was to be assigned to each as light-house inspector under its orders.

Further Requirements.—The Board was to make and promulgate, with the approbation of the Secretary of the Treasury, rules and regulations necessary for securing an efficient, uniform, and economical system of administration. It was to have prepared, by its Engineer Secretary, or other engineer officers of the Army under its orders, all plans, drawings, specifications and estimates of cost of all illuminating and other apparatus, of construction and repair of towers and buildings. It was to procure by public contract all material for the construction and repair of light-houses, light-vessels, beacons, buoys, etc., and all construction and repairs were to be made under the superintendence of its Engineer Secretary. It was to furnish estimates of all the expenses which the several branches of the Light-House Establishment might require, and to make a full annual report. The members of the Board were to receive no pay for their services other than that they received in the Army, Navy, or civil service, and they were prohibited from having any interest in any light-house contracts, as were all others in the light-house service. Each of those who had served on the Provisional Board were appointed on the Permanent Board, and its organization was completed by adding to it Prof. Joseph Henry, Secretary of the Smithsonian Institution, and Capt. E. L. F. Hardcastle, U. S. Army, the latter as its Engineer Secretary.

First Board Meeting.—The Board met on October 9, 1852, and elected Commodore Shubrick, U. S. Navy, as its chairman; and then it arranged to receive from the General Superintendent the property of the Light-House Establishment, and to make the necessary rules and regulations for its governance. Those who had made the program which had guided legislation to the creation of this Board, and who had in mind all the details necessary for carrying out the plan, and who had the necessary industry, perseverance and patience to put them into operation; those who knew all the defects of the service and all the excellences of the French service on which the new establishment was to be modeled; those who had so much at heart the interests of the plan, and who had staked their reputation on its success, were appointed on the Board. And their zeal was tempered by the addition to it of the calm wisdom of Prof. Joseph Henry, the Secretary of the Smithsonian Institution, whose habits of patient investigation, and impartial decision on the weight of ascertained authority, and whose already great reputation as a physicist, would go far to prevent any unnecessary changes or any hasty action. The plans proposed by the Provisioual Board to Congress, and formulated in the organic act, were put into operation by the Permanent Board as rapidly as existing law and the funds at the control of the Board would permit.

The Working Organization.—An Inspector, who was either an Army or Navy officer, and, as soon as needed, an engineer officer from the Army were assigned to each light-house district. The inspectors, under the charge of the Naval Secretary, who also had charge, in the absence of the Chairman, of the office of the Board, were charged with the maintenance of the lights and light-houses and with the discipline of the light-keepers. The district engineers, under the direction of the Engineer Secretary, were charged with building the light-houses, with keeping them in repair, and with the purchase, the setting up, and the repairs of the illuminating apparatus. Both inspectors and engineers made regular and special reports to the Board, acting always under its direction, and the Board made a full annual report to the Secretary of the Treasury, who, in turn, made a full annual report to Congress. The Board assigned its members first to an executive committee, and then divided them into committees on finance, engineering, light-vessels, lighting and experiments, and placed that one of its members most expert in each particular branch at the head of the committees having charge of that branch. The committee on light-vessels was afterward charged with the care of buoys also, when it was called the "committee on floating aids to navigation." In after years, the committee on the location of light-houses was added to the number. The executive committee, consisting of the Chairman and the two Secretaries, were in perpetual session, carrying on the routine business of the establishment, while the other committees met frequently, and the full Board met monthly, or oftener, though required by law to meet but once a quarter.

Practical Workings.—The Board perfected the classification of lights, and so differentiated them by proper distinctions that mariners were enabled to identify and recognize each light. It substituted light-houses for light-ships, wherever practicable, as rapidly as desirable, thereby making large saving in expense for maintenance without diminution of the light produced. When sperm-oil became too expensive for economical use, the Board cast about for a substitute for it as a light-house illuminant, and after trying and discarding *colza,* a vegetable oil, it finally, after much experimentation, adopted lard-oil, at a large saving in cost and without diminution of light. And again, twenty years after, when it was evident that a further economy could be made, it substituted mineral-oil for lard-oil, after much tentative action, resulting in the invention and manufacture of lamps for its proper combustion. It has tested gas as a light-house illuminant without finding it adapted to the purpose, although it still has several stations lighted with gas from the neighboring cities, and one series of stations lighted with compressed gas made by its employés.

Proper Machines.—It has also tested electricity to a certain extent, but thus far it has found that for general purposes its use is of more hinderance than help to navigators, and hence has been forced to restrict its use as an illuminant within well-defined limitations. By a long series of investigations into the laws of sound, it ascertained the principles on which fog-signals, as aids to navigation, were to be constructed, and giving them to the public, stimulated the invention of proper machines, encouraged their manufacture, and then put them in operation without other expense to the Government than their purchase.

Mississippi Lights.—When the commerce on the Mississippi had induced Congress to authorize aids for river navigation, the Board devised and put into operation a system of lights which has revolutionized steam-boat navigation, making it so safe that the boats which tied up at night now run as by day, and that at a small cost, as compared with the expense of the lights on the ocean and even on the lake coasts.

Light-Keepers.—The Board has organized and built up by degrees a corps of intelligent light-keepers, who on entering the service in its lowest rank, after examination are eligible to promotion in grade and pay according to merit, as vacancies occur, whose tenure of office is practically during good behavior, where transfers in location are made when the wishes of the keepers and the wants of the service coincide, and whose physical and mental welfare are carefully looked after by the Board, which aims to make its keepers contented in their responsible and isolated situations.

Naval Assistance.—The Board has had the services of some of the brightest and most active minds in the American Navy. The Light-House service has, like the Coast Survey, come to be regarded as a training-school for young officers and as a field for the best efforts of those higher in rank. The roll of the light-house inspectors contains the names of the flower of the Navy; hence it is no source of wonder that a tour of light-house duty is sought by the more ambitious and studious of our naval officers, and that the service has its choice from among the best of them in times of peace.

Army Assistance.—The Army has also been well represented in the light-house service. On the list of the light-house engineers will be found many of the names which have given our military establishment reputation if not fame, and such have been their victories in solving the problems of submarine structures, of opposing successful resistance to the violent attacks of the elements under the most discouraging circumstances, that it is a question whether those names connected with the erection of certain light-houses will not live when history has let die the memory of their brilliant military achievements.

Noted Advisers.—The civil service has been well represented on the Board itself, in connection with the Army and the Navy, by such men as Professors Bache, Peirce, Hilgard, Henry and Morton, who have acted as the scientific advisers of the service, and whose names are identified with the solution of problems in physics which have been worked out under their direction in methods for guiding mariners by light at night, and by sound when light was unavailable.

Light-House Construction.

Construction of Early Light-Houses.—The light-houses on the New England coast were constructed previous to 1840 in two forms, namely: conical towers of rubble stone masonry, and wooden frame towers erected upon the roofs of the keeper's dwellings. The stone towers were built on the natural rock, from stone split from the adjacent ledges, or from pieces collected on the beach, sometimes even from fragments of the cliffs rounded by attrition in the surf. The walls were usually 3 feet thick at the base, tapering to 2 feet in thickness at the top, and the towers varied in height from 20 to 50 feet. At the top of the tower and within the walling of rubble, a dome of brick was turned, with a square opening near the springing-line on one side forming a scuttle entrance to the lantern. On this brick dome, a flat roof composed of slabs of stone 4 inches thick was laid, projecting over the walls of the tower from 6 to 12 inches. The lanterns were attached to the towers by imbedding the lower ends of their iron angle-posts into the masonry of the walls some 3 or 4 feet, and the entire construction of the towers was rude in kind. The wooden towers erected on the keepers' dwellings were framed into the roof of the house. The angle-posts rested on the attic floor-beams unsupported by studding; consequently the framing of the house-roof was distorted by the swaying lateral motion of the tower in storms, and there was necessarily some leakage.

Improved Construction.—In 1847 the construction of six difficult light-house structures was devolved by Congress on the Topographical Engineers of the Army. They used the iron pile system, when applicable, and made numerous improvements in the combination of the framework, in making appropriate arrangements of elevated apartments for the keepers, in making disk pile foundations, for coral or incrusted bottoms, and in improved devices for the foundations. Capt. W. H. Swift, of this corps, rebuilt the Black Rock Beacon in Long Island Sound, some 4½ miles from Bridgeport, Conn. Three successive stone beacons, costing together some $21,000, had, in the course of twelve years, been demolished. Captain Swift, at a cost of but $4,600, erected a pile beacon 34 feet above low water, 3 feet higher than its predecessors, which is still standing. An artificial foundation was made by placing six 12-ton stones partly in an excavation, and by bedding them in concrete, making a solid platform, and setting into it five wrought-iron periphery piles and one centre pile, measuring from 3 to 5½ inches in diameter. They were sunk through holes drilled to receive them, rose in the form of a conic frustum, and were solidly joined together, and properly capped at the top.

Old Minot's Ledge Light-House.—A pile structure was also erected on Minot's Ledge in the open sea, near Boston Bay, in 1847-48, by Captain Swift, but it was destroyed by the storm of 1851, and the keepers lost their lives. It was based on the solid rock by drilling holes, 5 feet deep, in which one centre and eight periphery 8-inch wrought-iron foundation piles were wedged, and so placed as to form an octagon 25 feet in diameter at the bottom and 14 feet at the top, which had an elevation of 60 feet. On this was placed the lantern, making the height of the whole edifice about 70 feet. The structure was stiffened by a complex system of diagonal bracing connecting the piles. Whatever may have caused the overthrow of the light-house—and that is still a mooted question—it does not appear to have been owing to any fault of the rock fastenings, as the piles were broken or twisted off, leaving stumps from 4 to 6 feet long in their original places.

Brandywine Shoal Light-House.—Brandywine Shoal light-house, in Delaware Bay, about 8 miles from the ocean, was begun in 1848 and lighted in 1850, costing $53,317 for the light-house, and $11,485 for the surrounding ice-breaker. This was the first light-house built in the United States on Mitchell's screw-pile, which takes its name from the inventor of its broad helicoidal flange, like an auger pod, which, by merely turning, is bored into a sand, mud or other penetrable bottom, so as to form a foundation with a broad bearing, on which the weight of a columnar structure may be safely diffused, and to which it is firmly fastened. This structure has a light 46 feet above sea-level, and is independent of the ice-breaker, which is a pier of thirty screw-piles, each twenty-three feet long, 5 inches through, connected at their heads, and near low water by spider-web braces, by which a shock on one pile is communicated to all. The light-house is in good condition, but the ice-pier has been re-enforced. It was designed and built by Maj. Hartman Bache, then of the Corps of Topographical Engineers of the Army.

Carysfort Reef Light-House.—An iron-pile light-house was begun for Carysfort Reef, Florida, in 1848 and finished in 1852. It stands on a coral reef in the Gulf Stream in 4½ feet of water, and is 112 feet high. It is founded on a hard exterior coral crust above a softer mass of calcareous sand; hence, screw-piles bored through the crust would have an insufficient bearing. On this account, large iron foot-plates were used to diffuse the pressure over the 130 square feet of surface crust, and the piles, passing through centre-eyes in the plates, were driven 10 feet into the sand, or until their under shoulders were lodged on the bed-plates. Nine 8-inch piles constitute the centre of an octagon, and the aggregate column gets rigidity from a peculiar system of cross-ties and braces. The structure was begun by Capt. Howard Stansbury, and was completed by Maj. Thomas B. Linnard, of the Engineer Corps, assisted by Mr. I. W. P. Lewis, a civil engineer. The keepers live on the structure in an elevated house. The whole was made, framed, tied together, and set up for trial in Philadelphia, so as to obviate the necessity of fitting parts at its isolated site. Its cost is stated at $105,069 for the entire structure.

Sand Key Light-House.—Sand Key light-house is built on a plan somewhat like that of Carysfort, but it stands in deeper water, on screw-piles; its focal plane is 121 feet above the foundation, it cost $101,520, was completed in 1853, and it has proved its complete stability. It was built by the late Maj.-Gen. George G. Meade, then a lieutenant of Topographical Engineers, who also built an iron screw-pile light-house on the flats in Key West Harbor, and the important pile beacon on Rebecca Shoals, since destroyed and rebuilt, and several other light-houses.

Sombrero Key Light-House.—But the most important light-house built by General Meade was that on Coffin's Patches, or Sombrero, Key, on the Florida Reefs, about 50 miles east of Key West. It stands in 8 feet of water and shows a light about 140 feet above the water, giving a range of over 20 statute miles. The 12-inch wrought-iron foundation-piles rest centrally on cast-iron disks 8 feet in diameter, and go 10 feet into the rock. They stand at the angles and centre of an octagon 56 feet across and are braced by horizontal radial and periphery ties of 5-inch round iron. The frame rises from this foundation pyramidal in shape, in six sections, with a diameter of 56 feet at the bottom, tapering to 15 feet at the top. All the shafts, except those of the lower series, are of hollow cast iron. The keeper's dwelling, in the second section, is 30 feet square, and of boiler-iron lined with wood. A circular stairway ascends to the lantern, in a cylinder of boiler iron lined with wood. The entire structure, illuminating apparatus included, cost about $120,000, and it is still standing, and is in excellent condition.

Screw-Pile Light-Houses.—There are now, principally in the Southern waters, more than seventy light-houses; some with and some without screws, and of a variety of detail and size. A fair specimen of the screw-pile, river or harbor light-house is that on Thimble Shoal, off the entrance to Hampton Roads, Va.

Fowey Rocks Light-House.—Fowey Rocks light-house was commenced in 1875, and was finished and lighted on June 15, 1878. It is on the extreme northern point of the Florida Reefs, is of iron, rests on nine piles driven about 10 feet into the live coral rock, and is built from plans made in the office of the Light-House Board. The different parts were made by three different contractors, and they were finally fitted together and set up before the structure was shipped to its site.

Iron Light-Houses.—The use of iron plates for building light-houses on dry foundations, though not uncommon abroad, met, early, with little favor in this country. But, in later years, when a greater knowledge of iron as a material for construction obtained here, it came into larger use. Among the more prominent of the iron towers are those at Cape Canaveral, Florida, designed in 1860, and built in 1868, 150 feet high; that at Bolivar Point, Tex., built in 1872, 120 feet high; that at Hunting Island, S. C., built in 1875, 130 feet high, and the tower erected at Cape Henry, Va., which is 165 feet high.

Iron Skeleton Tower.—Iron skeleton towers are used on land where the soil affords an inadequate support for a masonry foundation, and where great cheapness was required. That at the Southwest Pass of the Mississippi may be regarded as typical. Its foundations consist of a grillage of timber resting on piles and covered with concrete, on which are secured the iron socket disks from which start eight external and one central shaft of the skeleton. A two-story dwelling for the keepers was placed within the shafts and a staircase was carried up to the lantern through a tube as in case of the similar lights on submarine foundations. These towers are found to meet the purpose for which they were intended, and are practicable where heavier structures would not answer, offering less resistance to the wind and being much cheaper to build.

A Specimen Iron Skeleton Structure.—An interesting specimen of these skeleton iron structures was erected in 1880 at Paris Island, Port Royal Sound, South Carolina, and exhibits the rear light of the Paris Island ranges. Altogether it is the most economical structure of its kind in the history of light-house construction. The plan was born of necessity, it being found that the appropriation made by Congress was not sufficient to put up the kind of structure which it was usual to place in such a position. The light exhibited is simply a locomotive head-light in form of a powerful parabolic reflector. It is claimed, however, that it is possible to use on it a lenticular apparatus. The tower is composed of columns, sockets, struts and tension-rods, framed in the form of a triangular pyramid. It rests on six circular iron disks, anchored to a concrete foundation. The top sections of the side facing the channel, for which the tower is the guide, are provided with horizontal slats to increase the visibility of the beacon by day. The light, which runs up and down in rails in the plane of the structure, is housed by day and at night is hoisted to its place at the apex of the triangle by machinery worked in the oil-house. The large foundation-plates are about 40 feet 4 inches apart. The focal plane of the light is 120 feet above the sea level, but the top of the structure is 132 feet from the ground. The cost of the iron work set up is $9,400, and that of the structure complete and lighted about $12,000.

Brick Tower Light-Houses.—St. Augustine light-house was built of brick and iron, on Anastasia Island, on the eastern coast of Florida. Its base is a frustum of an octagonal pyramid, on which rests the frustum of a cone. The interior of the tower is lighted by five windows. Eight flights of spiral stairways furnish access to the watch-room, the first seven of which make half a revolution of a spiral, but the eighth a whole revolution. This arrangement does away with the incumbrance of a central shaft to support a winding stairway, and allows of a better lighted interior and of more room. The structure is 150 high from base to focal plane, and 165 feet above the level of the sea, shows a first-order light, and cost about $100,000 for its erection. Many brick light-houses of this type have been built, among which are those at Cape Hatteras, Currituck Beach and Body's Island, North Carolina; Morris Island, South Carolina; Sand Island, Alabama; Cape Foulweather, Point Arena, and Pigeon Point, on the Pacific coast.

Stone Tower Light-Houses.—The new Minot's Ledge light-house was almost the first, if not the first, important structure erected by the Light-

House Board. It was its most important engineering work, and, according to General Barnard, himself an engineer of wide fame, "it ranks, by the engineering difficulties surrounding its erection, and by the skill and science shown in the details of its construction, among the chief of the great sea-rock light-houses of the world." The Board gave to the plan and its execution its freshest and best powers, and the combined energies of all its members. A careful survey of the rock was made under the orders of the Board by Major Ogden, U. S. Army. Then, after a full consideration of all the difficulties by the full Board, the preparation of the plan was devolved on the chairman of its Committee on Engineering, Genral Totten, then Chief of the Engineers, U. S. Army, who planned the masonry tower for this difficult position, and so successfully that, with the exception of the lower stones of the foundation, which had to be studied out of the rock itself, and some details of the construction, the tower was built throughout by B. S. Alexander, then lieutenant of engineers, according to the plans of General Totten. The brief memoir left by Colonel Alexander seems to be the only authentic record of the construction of the tower, but, brief and modest as it is, it shows that the skill and ability of the builder equaled that of the designers, and the great tower is likely to long stand as a monument to both and to the Board that availed itself of their powers. The last stone was laid June 29, 1860, five years from its commencement, and its cost, including the keepers' houses on shore, was about $300,000.

Lake Light-Houses.—There are many light-houses on the northern lakes of types suited to those great "unsalted seas." Of these one of the most important is the Spectacle Reef light-house, on Lake Huron, Michigan. It is similar in structure to that on Minot's Ledge. It stands on a limestone ledge, at the northern end of Lake Huron, and its nearest land is 10½ miles distant. The waves have a southeastward fetch of 170 miles, and the ice-fields which are here moved by a current and are thousands of acres in area had to be equally provided against, by interposing a structure against which the ice was crushed. Work was commenced on it in 1870 and it was finished in 1874 at a cost of $375,000. A similar structure, 101½ feet in height, and costing $300,000, has been built in Lake Superior, on Stannard's Rock, 28 miles from the shore. The light is visible for 18 miles.

Tubular Foundation Light-Houses.—A sample of these is Southwest Ledge light-house which is built on a rock in Long Island Sound, at the mouth of the harbor of New Haven, Conn., about a mile from the land. The surface of the ledge is made to approximate a level by a layer of concrete at least 4 feet thick. Two courses of masonry, each 18 inches thick, are laid on the concrete. The upper surface of the masonry is 4 feet below mean low water, 10 feet below mean high water, and 11 feet 3 inches below extreme high water. The foundation cylinder rests directly on the masonry. It is composed of cast-iron plates, 6 feet high, 4 feet wide, and 2 inches thick, with a curve of 15 degrees, and they are bolted together. This cylinder is 24 feet in diameter, and about 30 feet high. The top of its gallery is a fraction over 18 feet above extreme high tide.

It is filled in solid with concrete to the top. An enrockment of about 3,000 tons of large granite blocks surrounds the pier. The tubular foundation is surmounted by an irregular octagonal house and tower, from which is shown a fourth-order fixed white light, 57 feet above the level of the sea. On January 1, 1878, it was lighted for the first time. The peculiarity of this structure is that, being round, it offers slight obstruction to floating ice, and that it is a monolith of artificial stone, surrounded by a veneering of iron sufficient to retain it in place until the concrete filling gained the requisite hardness by age. This was the first of a number of the kind.

Light-Houses on Submarine Stone Foundations.—A sample of these is Race Rock light-house, in Long Island Sound, 8 miles from New London, Conn., which was built under great difficulties. It is off Fisher's Island Sound, at the mouth of the Race, where the waters of the sound rush both ways, according to the tide, with great velocity and force, and where in heavy weather the waves run high and with great power.

The ledge on which the light-house is built is under water. It has one large and several smaller spurs of rock rising above the general surface. The least depth at mean low water on the principal spur, or Race Rock proper, is 3 feet. The greatest depth at mean low water within the circle of 69 feet is 13 feet.

The ledge was, with the help of divers, made approximately level with small broken stone and rip-rap. Upon this is placed a circular-stepped mass of concrete, 9 feet thick, built in 4 concentric layers. The lower layer is 69 feet in diameter and 3 feet thick. To form the layers of concrete, cylindrical bands of half-inch iron, of the height and diameter required for the respective layers, were used. The upper surface of the concrete, 8 inches above mean low water, carries a conical pier, 30 feet high, 57 feet in diameter at the base, and crowned by a projecting coping 55 feet in diameter. The pier is made of heavy masonry backed with concrete, in which cisterns and cellars are formed.

The pier is surmounted by a granite dwelling one story and a half high. From the centre of its front the granite light-tower ascends. A landing-pier, 53 feet long and 25 feet wide, built of heavy masonry, gives access to the light-house. The whole structure is surrounded and protected by riprap. The tower, which is square at the base and octagonal at the top, carries a fourth-order flashing light, which is 68½ feet above the sea-level. This work, which was commenced in 1872, was finished in 1878, and lighted for the first time on the night of January 1, 1879.

Light-Houses on Caisson Foundations.—The Light-House Board had long been contemplating the approaching need of building light-houses on shoals distant from land, in the opean ocean. Tentative plans had been made for use at various sites, but no practical action was taken, when Congress made an appropriation of $175,000 for the erection of a light-house on Fourteen-Foot Bank, which is some 20 miles from the nearest harbor, between the Capes of the Delaware. The time came to put into practical operation the plans which had before only existed in theory. Meantime the Germans were engaged in making plans for a similar work in the North Sea, at the mouth of the Weser River, and at about the same distance from land. And the Light-House Board, after a careful study of those plans, determined to build Fourteen-Foot Bank light-house upon the same lines, but from special plans made to fit the particular case.

Light-Vessels.

Purpose of Light-Ships.—The purpose of a light-ship is to do the work of a light-house in a place where one is necessary, but where it has not been erected because of the great difficulty, not to say expense, of such a structure. But the light-ship should have the permanency and efficiency of a light-house, and should give as good a light in clear weather and sound as far-reaching a fog-signal in thick. To insure permanency of position is a matter of great difficulty. When moorings have been made too heavy to drag, chains have broken; when they have held, mooring-bitts have been torn out; when they have held, the ship has foundered at her anchors, or the cable has been slipped and the ship has sought a harbor or gone to sea for safety. But under the present rules of the Light-House Board rigid inspection is frequently made of the riding-gear of the light-ships, and the absence of a light-ship from her moorings is now quite unusual.

Anchorage of Light-Ships.—The Board has many light-ships of various sizes on duty in the service. The smaller, slighter-built, and older vessels are moored in sounds and bays. The larger, stronger, and later-built are anchored in the open ocean. Among the latter is that on New South Shoals, some 21 miles at sea, the nearest land being Nantucket Island; Pollock Rip light-ship, moored at the eastern entrance to Nantucket Sound; another is moored at the western entrance to Vineyard Sound; another at Sandy Hook entrance to New York Bay; two off the mouth of Delaware Bay; another on Winter Quarter Shoal, off the coast of Virginia; another off the entrance to Chesapeake Bay, Virginia; another on Frying-Pan Shoal, off the mouth of Cape Fear River, North Carolina; another on Rattlesnake Shoal, off the entrance to Charleston, S. C.; another off Martin's Industry Shoal, at the entrance to Port Royal, S. C., and another on Trinity Shoal, off the coast of Louisiana. Several light-ships have fog-signals which are in effect locomotive steam-whistles of great size and power.

Light-Ships Lights.—Each light-ship shows either one or two lights. Each light is composed of eight reflectors, each 12 inches in diameter, set upon a ring which encircles the mast, and can be lighted and hoisted to the mast-head by night, and lowered and housed by day. These reflectors are illumined by a kind of argand lamp, in which the sperm oil formerly burned was succeeded by lard oil, and that is now superseded by mineral oil, burned in a lamp specially adapted to the purpose. The lighting apparatus is inclosed in a lantern, with large panes of glass which protect the light from the wind.

Light-Ship Tenders.—The Board has a large fleet of steamers and schooners, ranging from 18 to 550 tons burden. It is the business of some of these steamers to attend to the buoyage of the coast, replacing the buoys which have gone adrift, exchanging every buoy for a fresh one once a year, and placing new buoys. They are also used to supply the light-houses with provisions, fuel and minor supplies, and on them the inspectors visit the light-stations to make their regular quarterly inspections and to pay the keepers. Certain of the tenders are used for construction purposes, freighting building material to light-house sites, and conveying building and repairing parties from station to station.

Buoys.

What a Buoy Is.—The buoy is to the seaman by day what the light is at night, and what the fog-signal is in thick weather. It tells him by its size, form, color and number how to avoid the rocks and shoals, and shows the way in and out of harbor.

Number of Buoys.—In 1842 the Light-House Board had nearly 1,000 buoys in position; in 1858 it had 1,034; in 1860 it had 1,738; during the war of the Rebellion it lost those on the Southern coasts, but in 1867 it had so far replaced and added to them that it had 2,044; in 1875 it had 3,002; in 1889 it had 4,309, and in 1903 it had 5,131 buoys in the waters of the several districts.

Buoy Laws.—The buoy service has its own code of laws, State and national, a fleet of small steamers for its maintenance, besides a corps of contractors to attend to the buoyage of coves and inlets impracticable to the tenders. It has its depots for the storage of iron buoys, where they are painted and numbered, or repaired, and also where wooden buoys are made ready for service. It has its own directory printed yearly, distributed gratuitously for the benefit of commerce, in which each one of the more than 5,131 buoys is mentioned by name, located by station, and is described by size, shape, color, number and vicinity. The problems connected with its improvement, as well as its maintenance, are considered as of grave importance, and are made the subject of deep consideration by the best scientific aid at the disposition of the Light-House Board.

Material of Buoys.—Buoys are of wood or iron. The wooden buoys now in use are sticks from 12 to 60 feet long, of pine or spruce, but preferably of cedar. The Board frequently contracts for the delivery at one of its depots of a cargo of logs, in the rough, at from $10 to $15 each, where they are freed of their bark, smoothed of their protruding knots, painted to the pattern required to tell their allotted story, fitted at the larger end with an iron sleeve, to which the stone or iron anchor can be attached by a mooring-chain, when they are packed in classes or sizes on skids to season, and finally to take their tour of duty in the water to replace others which are to rest a while on shore, be freed from acquired barnacles, take on a fresh suit of paint, and, by drying, recover their buoyancy. Spar-buoys are classified first by length and thickness, and then by acquired color; but they are interchangeable within these conditions.

Iron Buoys.—Iron buoys are hollow, with air-tight compartments, and are made of three shapes, called nun, can and ice buoys. The nun-buoy is almost conical in form; the can-buoy is in shape the frustum of a cone, nearly approaching a cylinder, and the ice-buoy is found much like a spar-buoy, of great length, slight thickness, and of largest diameter near its middle. Each shape is classified by size, and diversified by color and number. They were once made of wooden staves, like barrels, but their rapid destruction by the *Teredo navalis* caused the substitution of boiler-iron. The cost of these buoys varies with the price of iron and the cost of labor.

Color of Buoys.—Congress prescribed by act of September 28, 1850, that red buoys with even numbers, be placed on the right-hand side, and black buoys, with odd numbers, on the left-hand side of channels approached from seaward; that buoys placed on wrecks or other obstructions, having a channel on each side, be painted with red and black horizontal stripes; that those buoys placed in mid-channel, and which indicate that they must be passed close-to to avoid danger, be painted with white and black perpendicular stripes; and, finally, that perches, with balls, cages, etc., when placed on buoys, will indicate a turning-point, the color and number of the buoy showing the side on which they are to be passed.

Dangers to Buoys.—Buoys are exposed to many dangers, not the least of which is that of being run down and ripped open by passing steamers. As the iron buoys are made with compartments, they rarely sunk, but their line of flotation is often lowered, and their usefulness accordingly decreased. Spar-buoys frequently lose a portion of their length, which is cut off by strokes of colliding propeller-blades. Despite State and national statutes forbidding it, vessels will sometimes make fast to buoys, thus gradually dragging them off their bearings. A buoy has sometimes been set adrift that a reward might be obtained for its recovery; but this is not a profitable operation, as the reward paid is varied with the circumstances of each case.

Buoys' Worst Enemy.—The buoys' worst enemy, however, is ice, when moving in mass, and with a tide or current. A well-made, well-moored buoy, at the mouth of a narrow river can create an ice-gorge; but usually, when the ice moves in force, the buoys met have their mooring-loops torn out, their mooring-chains broken, or their mooring-anchors weighed; and in each case the buoys are carried out to sea, when the buoy-tenders give chase, and, if successful in their capture, return them to position. The sea-going qualities of the large iron buoys are shown by their volunteer voyages. One is now anchored off the coast of Ireland, where it was picked up, about six weeks after it had been wrenched from its place in New York Harbor, and turned over to the Irish Light-House Establishment, by which it was reported to the United States Light-House Board, when it was presented to the Irish Board, who simply added to its former marks their own, and moored it near the point where it came ashore, in commemoration of its peculiar voyage.

River Lights.

Necessity for River Lights.—The commerce of the Western rivers was mainly restricted to motion by daylight, because of the difficulty in keeping steamboats in the tortuous channels and in avoiding the obstructions with which the channels abound. There were in 1873-74 on the Mississippi, Missouri, and Ohio Rivers, 1,100 steamboats, of 258,000 tons; 832 licensed barges, of 179,000 tons, and coal barges and other craft of 750,000 tons, making a total of about 1,200,000 tons. The total value of the cargoes carried by them was estimated at $400,000,000 per year. The coal sent to market yearly by the Ohio River alone amounted to 4,000,000 of tons. Hence, when those interested in river commerce took vigorous measures, they had little difficulty in procuring Congressional action. In 1874 an appropriation of $50,000 was made for a survey of the Mississippi, Ohio and Missouri Rivers, and to establish on them temporary lights and buoys. The survey was made, a favorable report followed, and two light-house districts were duly established, one, the fourteenth, extending from Pittsburg to Cairo, on the Ohio River, and the other, the fifteenth, comprising the Mississippi and the Missouri Rivers. The boundaries of each have since been increased and other districts added. An inspector and an engineer were appointed for each district; a steamer hastily fitted for the work was furnished to each inspector, and they proceeded to light up the rivers.

Difficulties of River Navigation.—The navigation of these waters was of the most intricate character. The crossings were numerous; and, at some, technically called "blind crossings," where the banks show no diversity of outline and where the channel is narrow, pilots were frequently delayed and could not always avoid disaster. At many points, previous to the establishment of the lights, passage was never attempted on a dark night; but by means of the lights the passages are made practicable at all times. The hidden obstructions are numberless, and in many places barely leave room for the passage of large steamers. There are many consecutive miles on these rivers where the wrecks average more than one to the mile. Keepers for the river lights are selected from among the people living on and owning property along the river, and they have generally been found trustworthy and awake to the demands of the service.

Kinds of River Lights.—The fixed lights used are substantially-made lens lanterns, which are suspended from an arm projecting from a post, or placed on the post at an elevation of from 8 to 10 feet from the ground. They are of most service during low water, though they afford important aid at other times. At points where the channel is made very narrow by permanent obstructions, and the passage dangerous, buoys have been placed as day marks, to which floating lights are attached at night. From the testimonials received from officers and managers of different steamboat lines, boards of trade and others interested in the navigation of those waters, these lights and buoys appear to be a great benefit to river commerce.

Number of River Lights.—On June 30, 1902, there were on the various rivers one thousand eight hundred and thirty lights. The river light is treated as separate and distinct from other lights, is put in a class by itself, as it is temporary as to its life and shifting as to its place. It is to be found in most of the light-house districts, but it is maintained from a separate fund, and it is governed in most respects by different regulations. But there are nearly twice as many of these as there are of the others, and they are destined to increase in greater proportion. It is claimed, as cheaply as they are maintained, that they are doing an immense deal of good. They meet a popular want quickly and well, and serve their purpose admirably.

Illuminating Apparatus and Illuminants.

Early Illuminating Apparatus.—The illuminating apparatus used by the Light-House Establishment varies with the dates of its use. The beacon on Point Allerton, Massachusetts, was illumined in 1673 by "fier bales of pitch and ocum" [*sic*], burned in open braziers. The light-house on Little Brewster Island, Boston Harbor, erected in 1715-16, was first lighted by tallow candles. Then followed the spider lamp, burned in the lantern as it might have been in a window. In 1812 the Government bought of Mr. Winslow Lewis, for $20,000, the patent for his "magnifying and reflecting lantern." This is described as consisting of a lamp, a reflector, and what was called the magnifier. The reflector was of a thin sheet of copper, commonly segments of a sphere, plated over with a slight film of silver, though the copper was so thin that its compression between the arms of its iron supports materially altered its form, and its silvered concave surface had much the grain and lustre of tin-ware, and would reflect no distinct image. The patentee of 1812 made no pretension to a knowledge of optics as now understood, and his reflectors came about as near to a true paraboloid as did a barber's basin. The lamp, roughly constructed on the principle of Argand's fountain-lamp, burning from 30 to 40 gallons of oil per year, had a three-quarter inch burner, and was attached to a circular iron frame in front of the reflector. Before the lamp was a so-called lens, of bottle-green glass, shaped like a bull's-eye let into ship's decks, from 2½ to 4 inches thick through the axis and 9 inches in diameter, which was supposed to have some magnifying power. This apparatus was inclosed in a massive wrought-iron lantern, glazed with panes 10 by 12 inches in size. The effect of the whole was characterized by one of the reporting inspectors as making a bad light worse. But its main merit seems to have been that of economy, as the patentee, who had fitted thirty-four light-houses with his apparatus, contracted in 1816 to maintain the lights on receiving one-half the oil previously consumed, and again, in 1821, for one-third of the old allowance.

Improved Reflectors.—This apparatus is spoken of more respectfully in a report to the House of Representatives in 1842, made by its Committee on Commerce, from which it appears that "the improvement in the character of the light and the economy in saving oil were subjects of high commendation by the Government." It also appears that the use of the magnifying bull's-eye was gradually done away with, so that but few remained in 1838, and the last one was removed in 1840. The administration of the system was largely improved. The reflectors were made on true optical principles, approximating, if not reaching, the paraboloid in form, were heavily silvered, and were properly placed. The heavy lantern frames were replaced by lighter ones, the small panes of glass by large ones, and the ventilation of the towers was so largely improved that obscuration by smoke was no longer unpreventable. The system, largely improved, was retained, but its administration was good only where it had faithful, intelligent and honest administrators. Finally, the reflectors were so well made and so well placed that, in certain instances, it is now a question whether a better light was possible than was then furnished. Some of the old reflectors then used appear from recent examination to have an enormous candle-power. But a poor light was the rule, and a good light the exception. War was made on the system of reflectors, and when the Light-House Establishment was turned over to the Light-House Board in 1852 the reflectors were replaced by the Fresnel lenticular apparatus, found so successful in France and more or less throughout the world. The adoption in this country of the lenticular apparatus made it possible for a light-keeper of average capacity to keep a good light, and impossible for him to keep a bad one, unless by violation of plain rules and avoidance of routine duties. Besides this, the saving in oil effected by the use of the lenses over reflectors was so great that the expense of exchanging the one for the other was saved in a few years, although the first cost of the lenses was quite large.

The Lens System.—The lenticular apparatus consists of a central, powerful lamp, emitting luminous beams in every direction, around which is placed an arrangement of glass, so formed as to refract these beams into parallel rays in the required directions. When a ray of light passes out of a rarer into a denser medium, or *vice versa,* it is refracted from its original direction, and assumes that which is induced principally by the density of the second medium. This is shown in the bent appearance of an oar or a mooring under water. The glass lens appears to bend the rays which fall on and emerge from its two surfaces. The bull's-eye lantern confines its rays to one direction by the use of this principle. As the normal figure of the lens is that to which its powers are due, the polyzonal lens must be considered as a complete lens with the unnecessary portions cut away. Thus the original lens is much diminished in weight, and it also has the greater certainty of the more uniform density of the material from which it is made. It affords also the means for correcting the aberration for sphericity, a great point in the manufacture of lenses. This is the principle of the polyzonal lens. They are applied to control the luminous rays of a lamp, by building then into a square figure for such lenses as are for revolving lights.

The Revolving Light.—For a revolving light, eight of such lenses, which, for a light of the first order, have a focal length of 3 feet 0.25 inch, are formed into an octangular drum. This surrounds the central lamp, which is placed in their common focus, and it is the principal portion of the controlling apparatus.

The Fixed Light.—Another adaptation of the principle is used for a fixed light. A section of the lens surrounds the focal point, and in the same plane. This produces a series of horizontal belts, with their vertical section similar to that of the lens in its circular form. This when applied to a central lamp causes a continuous belt of light in azimuth, instead of a series of beams parallel, or nearly parallel, to the axis of the circular lenses, as in the case of the revolving apparatus. In the focus of this belt, or drum of glass, the lamp is placed.

Coast Lights.—In coast lights, the light is not generally required all around the horizon. Over the land in the rear there would be a waste of the light from the great lamp, which is sufficient to illuminate the whole horizon. This is avoided in the reflector-light, as a small number of lamps is used. But in the dioptric apparatus the light is economized by the use of spherical mirrors placed on that side. They are generally of silvered copper curved to a radius equal to that of the focal lenses to which they are applied, having the flame as a centre. Thus they reflect the rays back again through the flame upon the lenses on the opposite side, and flame, being perfectly transparent, there is in this no loss of power.

Lantern Lights.—In the early days the lantern consisted of a cylinder of heavy wooden frames, holding small, thick panes of plate-glass. These window-bars and supporting-posts interfered with the light. In some directions it was nearly obscured. This defect was remedied to a great extent by the substitution of diagonal metal framework in the lantern for that formerly used. Glass made in triangular panes was fixed in gun-metal frames, which, by crossing the light diagonally, did not obscure all the perpendicular beam, as did that in the older light-rooms. This drawback was still further minimized by arranging a series of lozenge-shaped panes, supported by steel frames, bent to the curvature of the lantern, which presented the thinnest possible edge towards any point of the horizon. The panes of glass held by these frames are also bent to the curve of the light-room, and are ground to the size of the frame. The lantern thus made forms a very strong cylinder, and its framework, from a short distance, is almost invisible to one immediately in the front.

Order of Lights.—Lights are divided into six orders, according to size and degree of strength. A first-order lenticular apparatus is a most beautiful object. It stands nearly 12 feet high, and is 6 feet in diameter, and involves in its structure some of the highest principles of applied science.

A first-order-light apparatus, as above said is 12 feet high and 6 feet in diameter, and the cost of the lenses alone varies from about $4,250 to $8,400.

A second-order-light apparatus is 4 feet 7 inches in diameter; the lens cost from about $2,760 to $5,530.

A third-order apparatus, diameter 3 feet 3⅜ inches, costs from about $1,475 to $3,650 for lenses alone.

A fourth-order or harbor light is 19⅝ inches in diameter and costs from about $350 to $1,230 for the lenses.

A fifth-order harbor light, 14½ inches in diameter, costs for the lenses from about $230 to $840.

The sixth-order or smallest size of harbor lens light is 11¾ inches in diameter and costs from about $190 to $315.

Visibility of Lights.—The distance from which the principal lights can be seen is only limited by the horizon. They might be seen 60, 80 or even 100 miles if sufficient elevation could be gained from which to view them. It is deemed that 250 feet is the maximum height necessary or advisable to give a light; this gives a horizon 18 miles distant. This can be extended to 20 miles or more by ascending to mast-head. When a light is unduly elevated it is, however, often obscured by clouds and fogs.

The following table shows, in nautical miles, how far objects can be seen at sea, according to their elevations and the elevation of the eye of the observer:

Height.	Distance.	Height.	Distance.	Height.	Distance.
Feet.	*Miles.*	*Feet.*	*Miles.*	*Feet.*	*Miles.*
5	2.555	70	9.562	250	18.070
10	3.614	75	9.897	300	19.795
15	4.426	80	10.222	350	21.381
20	5.111	85	10.536	400	22.857
25	5.714	90	10.842	450	24.244
30	6.260	95	11.139	500	25.555
35	6.761	100	11.428	550	26.802
40	7.228	110	11.986	600	27,994
45	7.666	120	12.519	650	29.137
50	8.081	130	13.030	700	30.237
55	8.476	140	13.522	800	32.325
60	8.852	150	13.997	900	34.286
65	9.214	200	16.162	1,000	36.140

Light-House Illuminants.—The illuminant of the Light-House Establishment has been changed whenever a better one has been found. The "fier bales of pitch and ocum" used in an open brazier at Point Allerton, in 1673, were succeeded by tallow candles at Little Brewster Island in 1716, and these gave way to fish oil at Sandy Hook, where it was burned until 1760. In 1812, sperm oil became the general illuminant, and remained so until succeeded by lard oil. Oil for the year is usually purchased by contract in the autumn, after advertisements for proposals, and is made deliver-able in large lots at different times and places, to suit the convenience of the establishment. When delivered it is subjected to careful and exact test to ascertain its purity; and its light-giving power in light-house lamps is ascertained by photometric measurement. The best oil of commerce is not always the best for light-house lamps, and the dealers have much difficulty in meeting the precise wants of the establishment; hence it is not unusual that some oil is rejected.

Other Illuminants.—After many experiments, petroleum, or coal oil, came into use in the Light-House Establishment. It is claimed that five gallons of mineral oil will give as much light as four gallons of lard oil, while the difference in price is about as one to six. Gas is used as an illuminant in favorable situations, but it makes a variable light owing to fluctuations in quality. Electric lights have never found high favor in the light-house service. Such lights seem to lack the penetrative quality, especially when a fog prevails. Again, its brilliancy in clear weather and at close distances is an objection, because it dazzles the eyes.

Liberty Enlightening the World.—This statue, which was presented by the French to the United States, when received by the President was, by order of November 7, 1886, "placed under the care and superintendence of the Light-House Board from thenceforth to be maintained by said Board as a beacon," and the order was carried into effect. There are nine duplex electric lights in the torch held in the hand of the statue above its head at a height of 305 feet above the sea-level, and is visible 24½ miles at sea, or more than 10 miles beyond the outside light-ship. Besides this there are five single arc lamps on the salients of the fort within which the statue stands on Bedloe's Island, which are shielded from the water side, so that they will not dazzle the eyes of the pilots, and so that the light will be thrown on the statue, thus making it even more striking by night than by day. This beacon is not included in the system of lights for New York Harbor.

Fog Signals.

Uses of Fog Signals.—The sound-signals generally used to guide mariners, especially during fogs, are, with certain modifications, sirens, trumpets, steam-whistles, bell-boats, bell-buoys, whistling-buoys, bells struck by machinery, cannons fired by powder or gun-cotton, rockets and gongs.

Gongs.—Gongs are somewhat used on light-ships, especially in British waters. They are intended for use at close quarters. Léonce Reynaud, of the French light-house service, has given their mean effective range as barely 550 yards. They are of most use in harbors, short channels, and like places where a long range would be unnecessary. They have been used but little in the United States waters. The term "effective range" is used here to signify the actual distance at which, under the most unfavorable circumstances, a signal can generally be heard on board of a paddle-wheel steamer in a heavy sea-way.

Guns.—The use of guns is not so great as it once was. Instances are on record in which they were quite serviceable. Admiral Sir A. Milne said he had often gone into Halifax Harbor, in a dense fog like a wall, by the sound of the Sambro fog-gun. But in the experiments made by the Trinity House off Dungeness, in January, 1864, in calm weather, the report of an 18-pounder, with 3 pounds of powder, was faint at 4 miles. Professor Henry says a 24-pounder was used at Point Boneta, San Francisco Bay, California, in 1856-57, and that, by the help of it alone, vessels came into the harbor during the fog at night as well as in the day, which otherwise could not have entered. The gun was fired every half hour, night and day, during foggy and thick weather in the first year, except for a time when powder was lacking. During the second year there were 1,582 discharges. It was finally superseded by a bell-boat, which in its turn was after a time replaced by a siren.

Rockets.—As a signal in rock light-houses, where it would be impossible to mount large pieces of apparatus, the use of a gun-cotton rocket has been suggested by Sir Richard Collinson, deputy master of the Trinity House. A charge of gun-cotton is inclosed in the head of a rocket, which is projected to the height of perhaps 1,000 feet, when the cotton is exploded, and the sound shed in all directions.

Bells.—Bells are in use at most United States light-stations, and at many they are run by machinery actuated by clock-work. Mr. Stevens, of Boston, has, at the suggestion of the Light-House Board, introduced an escapement arrangement moved by a small weight, while a larger weight operates the machinery which strikes the bell. These bells weigh from 300 to 3,000 pounds. There are over a hundred of them in use on the coasts of the United States.

Whistling-Buoys.—The whistling-buoy now in use consists of an iron, pear-shaped bulb, 12 feet across at its widest part, and floating 12 feet out of water. Inside the bulb is a tube 33 inches across, extending from the top through the bottom to a depth of 32 feet, into water free from wave-motion. The tube is open at its lower end, but projects, air-tight, through the top of the bulb and is closed with a plate having in it three holes, two for letting the air into the tube and one between the others for letting the air out to work the 10-inch locomotive whistle with which it is surmounted. These holes are connected with three pipes which lead down to near the water-level, where they pass through a diaphragm which divides the outer cylinder into two parts. The great bulb which buoys up the whole mass rises and falls with the motion of the waves, carrying the tube up and down with it, thus establishing a piston-and-cylinder movement, the water in the tube acting as an immovable piston, while the tube itself acts as a moving cylinder. Thus the air admitted through valves, as the buoy rises on the wave, into that part of the bulb which is above water, is compressed, and as the buoy falls with the wave it is further compressed and forced through a 2½-inch pipe, which, at its apex, connects with the whistle. It is a curious fact that, in proportion as they are useful to the mariner, they are obnoxious to the house-dweller within ear-shot of them, and that the Light-House Board has to weigh the petitions and remonstrances before setting these buoys off inhabited coasts. They can at times be heard 15 miles, and emit an inexpressibly mournful and saddening sound.

Bell-Buoys.—The bellboat has been superseded by the Brown bell-buoy, which was invented by the officer of the Light-House Establishment whose name it bears. The bell is mounted on the bottom section of an iron buoy 6 feet 6 inches across, which is decked over and fitted with a framework of 3-inch angle-iron 9 feet high, to which a 300 pound bell is rigidly attached. A radial grooved iron plate is made fast to the frame under the bell and close to it, on which is laid a free cannon-ball. As the buoy rolls on the sea this ball rolls on the plate, striking some side of the bell at each motion with such force as to cause it to toll. Like the whistling-buoy, the bell-buoy sounds the loudest when the sea is the roughest, but the bell-buoy is adapted to shoal water, where the whistling-buoy could not ride; and, if there is any motion to the sea, the bell-buoy will make some sound. Hence the whistling-buoy is used in roadsteads and the open sea, while the bell-buoy is preferred in harbors, rivers, and the like, where the sound-range needed is shorter and smoother water usually obtains.

Locomotive Whistles.—The steam fog-whistle is the same instrument ordinarily used on steamboats and locomotives. It is from 6 to 18 inches in diameter, and is operated by steam under a pressure of from 50 to 100 pounds. An engine takes its steam from the same boiler, and by an automatic arrangement shuts off and turns on the steam by opening and closing its valves at determined times. The machinery is simple, the piston-pressure is light, and the engine requires no more skilled attention than does an ordinary stationary engine.

Trumpets.—The Daboll trumpet was invented by Mr. C. L. Daboll, of Connecticut. The largest consists of a huge trumpet 17 feet long, with a throat 3½ inches in diameter, and a flaring mouth 38 inches across. In the trumpet is a resounding cavity and a tongue-like steel reed 10 inches long, 2¾ inches wide, 1 inch thick at its fixed end, and half that at its free end. Air is condensed in a reservoir and driven through the trumpet by hot air or steam machinery at a pressure of from 15 to 20 pounds, and is capable of making a shriek which can be heard at a great distance for a certain number of seconds each minute by about one-quarter of the power expended in the case of the whistle. In all his experiments against and at right angles and at other angles to the wind, the trumpet stood first and the whistle came next in power.

The Siren.—The siren of the first class consists of a huge trumpet, somewhat of the size and shape used by Daboll, with a wide mouth and a narrow throat, and is sounded by driving compressed air or steam through a disk placed in its throat. In this disk are twelve radial slits; back of the fixed disk is a revolving plate containing as many similar openings. The plate is rotated 2,400 times each minute, and each revolution causes the escape and interruption of twelve jets of air or steam through the openings in the disk and rotating plate. In this way 28,800 vibrations are given during each minute that the machine is operated; and, as the vibrations are taken up by the trumpet, an intense beam of sound is projected from it. The siren is operated under a pressure of 72 pounds of steam, and can be heard, under favorable circumstances, from 20 to 30 miles.

Personnel of U. S. Light-House Establishment.

Keepers.—Light-house keepers are appointed by the Light-House Board, after examination. They must be between eighteen and fifty years of age, be able to read, write and keep accounts, to do the requisite manual labor, pull and sail a boat, paint, whitewash and keep up necessary repairs. Their appointment is certified to the Secretary of the Treasury, who issues the full appointment. Keepers have assistants at necessary points, who are also appointive. Keepers cannot engage in any business which will interfere with their duties. They are made comfortable in their exposed and lonely quarters and duties, by careful provisions for dwelling, feeding, and such entertainment as the circulating library affords. The pay ranges from $100 to $1,000 a year, according to circumstances. They wear a prescribed dress and fatigue uniform.

Light-House Inspectors.—Light-house inspectors are officers of the Navy, the detail being changed, as a rule, every three years. They are paid their regular shore pay. They must attend, under direction of the board, to supplying the lights of their respective districts; maintaining buoys; keeping up discipline among light-keepers; inspecting light-stations, ships, tenders and all light-house people; purchasing supplies; disbursing funds; paying employees; and must make stated reports to the board.

Light-House Engineers.—Light-house engineers are detailed from the Corps of Engineers. Their duties as light-house engineers are to prepare plans and specifications for light-house structures, and submit them to the board; to purchase the material, arrange for the labor, and take charge of their erection or repair; to set up and keep in repair the illuminating apparatus of each light-station in their districts, and to purchase and care for the real estate, light-house sites, etc., of the establishment in their districts. They report to the board, when requested, as to the necessity and cost of establishing new aids to navigation. The coasts of the country show with what success the engineers have grappled with the problems of light-house engineering, not only on land but on submarine foundations.

They are required to disburse large sums of money for purposes of construction and repair, but no bond is required of them.

Establishing Light-Houses.—It is not only the duty of the board to build light-houses when authorized by Congress, but it is customary for the board to give Congress the existing reasons for refusing appropriations for building unnecessary light-houses. Each light-house is established by Congressional enactment. A petition from those interested, usually shipowners and shipmasters, is presented by the representative in Congress in whose Congressional district it is proposed that the light-house should be located. The House of Representatives or Senate refers the petition to its Committee on Commerce, which asks the opinion of the Secretary of the Treasury on the matter. He refers the question to the Light-House Board, which in turn calls on the inspector and engineer of the proper light-house district to examine and report on the necessity, practicability, and cost of the proposed structure. Their reports, with such other information on the subject as the board may have at hand, is referred to its own committee on location, when a formal report and recommendation is made to the board, which report is transmitted to the Secretary of the Treasury, who in turn sends both his own opinion and the board's recommendation to the committee of the Senate or Lower House, asking the information, and on the report of that committee, if it is favorable, is based the report of the Committee on Appropriations and the action of Congress. But frequently the reports are unfavorable, and it has happened that the board has been interpellated on the same matter by several successive Congresses, and has been required to build the light-house it has reported was not needed.

The board often receives from those interested statements bearing on a case intended to affect favorably its report as to the need for a proposed light-house. Thus the board often weighs rather than finds evidence, and supplements rather than institutes investigation.

Light-House Administration.

Composition of the Board.—The Light-House Board, which has charge of all lights and other aids to navigation, is, under the organic act of August 31, 1852, composed of two officers of the Navy of high rank, two officers of the Corps of Engineers of the Army, two civilians of high scientific attainments, whose services may be at the disposal of the President, and an officer of the Navy and an officer of the Engineers of the Army, as secretaries, the Secretary of the Treasury being *ex officio* president, and in his absence a member. as chairman, elected by the board to preside.

The following is a list of the members of the Light-House Board, 1902-03:

Hon. Leslie M. Shaw, Secretary of the Treasury, *ex officio* president; Rear-Admiral George C. Remey, United States Navy, chairman; Colonel Walter S. Franklin, Colonel Alexander Mackenzie, Corps of Engineers, United States Army; Colonel Peter C. Hains, Corps of Engineers, United States Army; Dr. Henry S. Pritchett, Institute of Technology; Captain Benjamin P. Lamberton, United States Navy; Captain Washburn Maynard, United States Navy, Naval Secretary; Major Daniel W. Lockwood, Corps of Engineers, United States Army, Engineer Secretary.

Number of Aids to Navigation.—The Light-

House Board, at the close of the year 1902, reported the following aids to navigation as in existence in the United States:

Light-houses and beacon lights	1,332
Light-vessels in position	45
Light-vessels for relief	9
Electric-lighted buoys in position	11
Gas-lighted buoys in position	102
Fog-signals operated by steam, caloric, or oil engines	188
Fog-signals operated by clockwork	231
Post lights	1,830
Day or unlighted beacons	859
Whistling buoys in position	84
Bell buoys in position	127
Other buoys in position, including pile buoys and stakes in Fifth District and buoys in Alaskan waters	4,920

In the construction, care, and maintenance of these aids to navigation there were employed:

Steam tenders	35
Steam launches	11
Sailing tenders	2
Light-keepers	1,429
Officers and crews of light-ships and tenders	1,348
Laborers in charge of post lights	1,412
Other employees	591

Management by Districts.

The entire light-house system of the United States is, for purposes of administration, divided into sixteen districts, whose officers, geographic extent and light appliances are as follows:

First District.—This district extends from the head of navigation on the St. Croix River, Maine, the northeastern boundary of the United States, to and includes Hampton Harbor, New Hampshire. It embraces all aids to navigation on the seacoast of Maine and New Hampshire and on all tidal waters between the limits named.

Inspector.—Commander Greenlief A. Merriam, United States Navy.

Engineer.—Lieutenant-Colonel William S. Stanton, Corps of Engineers, United States Army.

In this district there are:

Light-houses and beacon lights	77
Day or unlighted beacons	115
Fog-signals operated by steam, caloric, or oil engines	13
Fog-signals operated by clockwork	30
Whistling buoys in position	15
Bell buoys in position	23
Other buoys in position	711
Steamer "Lilac," buoy tender, and for supply and inspection	1
Steamer "Myrtle," for construction and repair in the First and Second Districts	1
Steamer "Geranium," buoy tender, and for supply and inspection	1

Second District.—This district extends from Hampton Harbor, New Hampshire, to Elisha Ledge, off Warren Point, Rhode Island, but does not include either the harbor or the ledge. It embraces all aids to navigation on the seacoast and tidal waters of Massachusetts, excepting on the Taunton River and that part of Mount Hope Bay lying within the State boundary.

Inspector.—Commander Arthur P. Nazro, United States Navy.

Engineer.—Lieutenant-Colonel William S. Stanton, Corps of Engineers, United States Army.

In this district there are:

Light-houses and lighted beacons	83
Light-vessels in position	11
Light-vessels for relief	2
Day or unlighted beacons	74
Fog-signals operated by steam, caloric, or oil engines	12
Fog-signals operated by clockwork	15
Gas-lighted buoys in position	8
Whistling buoys in position	12
Bell buoys in position	20
Electric-bell buoy in position	1
Other buoys in position	564
Ice buoys for winter use	7
Steamers "Verbena," "Mayflower" and "Azalea," buoy tenders and for supply and inspection	3
Steamer "Myrtle," for construction and repair in the First and Second Districts	1

Third District.—This district extends from Elisha Ledge, off Warren Point, Rhode Island, to a point on the coast of New Jersey, opposite Shrewsbury Rocks, and includes the ledge and the rocks. It embraces all aids to navigation on the coasts of Rhode Island, Connecticut, and New York, and of New Jersey northward of the point opposite Shrewsbury Rocks, and on all tidal waters tributary to the sea or Long Island Sound between the limits named, together with the aids on Whitehall Narrows and on the United States waters of Lakes Champlain and Memphremagog.

It now includes the light-house service of Porto Rico, and the adjacent islands, and the waters of the islands lying east of the seventy-fourth meridian of longitude west of Greenwich, which were ceded to the United States by the Government of Spain by treaty entered into on December 10, 1898.

Inspector.—Captain William M. Folger, United States Navy.

Engineer.—Major William T. Rossell, Corps of Engineers, United States Army.

There are in this district:

Light-houses and beacon lights, including 101 post lights	283
Light-houses in Porto Rico	15
Light-vessels in position	7
Light-vessels for relief	4
Day or unlighted beacons	45
Fog-signals operated by caloric or oil engines	31
Fog-signals operated by clockwork	55

Electric-lighted buoys	11
Gas-lighted buoys	13
Whistling buoys in position	8
Bell buoys in position	32
Other buoys in position	642
Steamer "Armeria," used for supplying the light-stations of the Atlantic and Gulf coasts	1
Steamers "John Rogers" and "Cactus," buoy tenders, and for supply and inspection of light-stations	2
Steamer "Gardenia," buoy tender and for freight	1
Steamers "Mistletoe" and "Iris," used for works of construction and repair of light-stations, fog-signals and day beacons	2
Steam launch "Nettle," for works of construction and repair on Lake Champlain	1
Steam launch "Daisy"	1

Fourth District.—This district extends from a point on the coast of New Jersey opposite Shrewsbury Rocks (but does not include the rocks) to and includes Metomkin Inlet, Virginia. It embraces all aids to navigation on the seacoast of New Jersey, Delaware, Maryland and Virginia, and the tidal waters tributary to the sea between the rocks and the inlet.

Inspector.—Commander John Hubbard, United States Navy.

Engineer.—Lieutenant-Colonel William A. Jones, Corps of Engineers, United States Army.

In this district there are:

Light-houses and beacon lights, including 5 post lights	69
Light-vessels in position	5
Day or unlighted beacons	3
Fog-signals operated by steam, caloric, or oil engines	8
Fog-signals operated by clockwork	7
Gas-lighted buoys in position	5
Whistling buoys in position	4
Bell buoys in position	8
Ice buoys in position	40
Other buoys in position	152
Steamer "Zizania," buoy tender, and for supply and inspection	1
Naphtha launch "Leal," used for works of construction and repair	1

Fifth District.—This district extends from, but does not include, Metomkin Inlet, Virginia, to and including New River Inlet, North Carolina. It embraces all aids to navigation on the seacoast of Virginia and North Carolina between the limits named, all of Chesapeake Bay, the sounds of North Carolina, and tributary waters.

Inspector.—Commander John M. Hawley, U. S. Navy.

Engineer.—Lieutenant-Colonel William A. Jones, Corps of Engineers, U. S. Army.

In this district there are:

Light-houses and beacon lights, including 27 post lights	171
Light-vessels in position	4
Light-vessels for relief	1
Day or unlighted beacons	15
Fog-signals operated by steam, caloric, or oil engines	8
Fog-signals operated by clockwork	65
Whistling buoy in position	1
Bell buoys in position	6
Gas-lighted buoys in position	3
Other buoys in position, including pile buoys and stakes	1,145
Steamers "Holly," "Maple" and "Violet," buoy tenders, and for supply and inspection	3
Steam launch "Bramble," used to supply gas to the beacons in the sounds of North Carolina	1
Sharpie (and gas tank) for supplying beacons and coast station	1
Steamers "Jessamine" and "Thistle," for construction and repairs	2

Sixth District.—This district extends from, but does not include, New River Inlet, North Carolina, to and includes Jupiter Inlet light-station, Florida. It embraces all aids to navigation on the seacoast, bays, sounds, harbors, rivers, and other tidal waters of North Carolina, South Carolina, Georgia, and Florida between the limits named.

Inspector.—Commander Wells L. Field, United States Navy.

Engineer.—Captain J. C. Sanford, Corps of Engineers, United States Army.

In this district there are:

Light-houses and beacon lights, including 114 post lights	209
Light-vessels in position	3
Light-vessel for relief	1
Day or unlighted beacons	46
Fog-signals operated by steam	3
Fog-signals operated by clockwork	3
Whistling buoys in position	9
Bell buoys in position	11
Other buoys in position	284
Steamer "Wistaria," buoy tender, and for inspection and supply	1
Schooner "Pharos," for construction and repair	1
Naphtha launch "Water Lily," for inspection and supply	1
Naphtha launch "Snowdrop," for construction and repair	1

Seventh District.—This district extends from a point just south of Jupiter Inlet light-station to and includes Perdido entrance, Florida. It embraces all aids to navigation on the sea and Gulf coasts of Florida, and on other tidal waters tributary to the sea and Gulf between the limits named.

Inspector.—Commander James H. Bull, United States Navy.

Engineer.—Lieutenant-Colonel A. N. Damrell, Corps of Engineers, United States Army.

There are in this district:

Light-houses and lighted beacons	84
Day or unlighted beacons	59
Whistling buoys in position	3
Bell buoys in position	6
Other buoys in position	288
Steamer "Laurel," buoy tender, and for supply and inspection	1
Steamer "Mangrove," buoy tender, and for supply and inspection	1
Steamer "Arbutus," for construction and repair in the Seventh and Eighth Districts	1

Eighth District.—This district extends from but does not include Perdido entrance, Florida, to the southern boundary of Texas. It embraces all aids to navigation on the Gulf coast of the United States and tidal waters tributary to the Gulf between the limits named, together with those on the Mississippi River below New Orleans and on Grand Lake and Lake Chicot.

Inspector.—Commander Kossuth Niles, United States Navy.

Engineer.—Lieutenant-Colonel A. N. Damrell, Corps of Engineers, United States Army.

In this district there are:

Light-houses and beacon lights, including 30 post lights on the Mississippi River, Grand Lake and Lake Chicot	115
Light-vessels in position	2
Day or unlighted beacons	92
Fog-signal operated by steam	1
Fog-signals operated by clockwork	15
Gas-lighted buoys in position	4
Whistling buoys in position	5
Bell buoys in position	3
Other buoys in position	130
Steamer "Pansy," buoy tender, and for supply and inspection	1
Steamer "Arbutus," for construction and repair in the Seventh and Eighth Districts	1

Ninth District.—This district includes all aids to navigation on Lake Michigan, Green Bay, and tributary waters lying west of a line drawn across the Straits of Mackinac just east of Old Mackinac Point light-station, Michigan.

Inspector.—Commander Lucien Young, United States Navy.

Engineer.—Captain James G. Warren, Corps of Engineers, United States Army.

There are in this district:

Light-houses and beacon lights	115
Light-vessels in position	4
Fog-signals operated by steam, caloric, or oil engines	36
Fog-signals operated by clockwork	7
Gas-lighted buoys in position	12
Bell buoy in position	1
Other buoys in position	104
Steamer "Dahlia," buoy tender, and for supply and inspection	1
Steamer "Alice M. Gill"	1

NOTE.—The number preceding the name of a light-station in the Ninth, Tenth and Eleventh districts, and that portion of the Third district on Whitehall Narrows, and the United States waters of Lakes Champlain and Memphremagog is that by which it is designated in the List of Lights and Fog-Signals of the United States on the Northern Lakes and Rivers, corrected to the opening of navigation, 1902.

Tenth District.—This district extends from the mouth of St. Regis River, St. Lawrence River, New York, to the mouth of the River Rouge, Detroit River, Michigan. It embraces all aids to navigation on the United States shores and waters of Lakes Erie and Ontario and the upper part of the St. Lawrence, the Niagara, and the lower part the Detroit rivers.

Inspector.—Commander A. Dunlap, United States Navy.

Engineer.—Major T. W. Symons, Corps of Engineers, United States Army.

In this district there are:

Light-houses and beacon lights	86
Light-vessels in position	3
Light-vessel for relief	1
Fog-signals operated by steam	9
Fog-signals operated by clockwork	6
Gas-lighted buoys in position	25
Other buoys in position	164
Steamer "Haze," buoy tender, and for supply and inspection	1
Steam barge "Warrington," for construction and repair	1

Eleventh District.—This district extends from the mouth of the River Rouge, Detroit River, Michigan, to the westerly end of Lake Superior. It embraces all aids to navigation on the United States shores and waters of Lakes St. Clair, Huron and Superior, the upper part of the Detroit River, the St. Clair and St. Marys Rivers, and that part of the Straits of Mackinac lying to the eastward of a line drawn across the straits just to the eastward of Old Mackinac Point light-station, Michigan.

Inspector.—Commander Edward H. Gheen, United States Navy.

Engineer.—Captain Lansing H. Beach, Corps of Engineers, United States Army.

There are in the district:

Light-houses and beacon lights, including 22 post lights	241
Light-vessels in position	3
Day or unlighted beacons	1
Fog-signals operated by steam	31
Fog-signals operated by clockwork	5
Gas-lighted buoys in position	30
Bell buoys in position	2
Other buoys in position	365
Steamer "Marigold," buoy tender, and for supply and inspection	1
Steamer "Amaranth," for construction and repair	1
Steam launch "Lotus," for construction and repair	1

Twelfth District.—This district extends from the boundary between California and Mexico to the boundary between California and Oregon. It embraces all aids to navigation on the seacoast, bays, rivers, and other tidal waters of California.

Inspector.—Commander John B. Milton, United States Navy.

Engineer.—Lieutenant-Colonel Thomas H. Handbury, Corps of Engineers, United States Army.

There are in this district:

Light-houses and lighted beacons, including 4 post lights	57
Light-vessel in position	1
Day or unlighted beacons	50
Fog-signals operated by steam or oil engines	17
Fog-signals operated by clockwork	11
Fog-signals operated by hand	2
Whistling buoys in position	19
Bell buoys in position	10
Other buoys in position	75
Steamer "Madroño," buoy tender, and for supply and inspection	1
Steam launch of "Madroño"	1
Steam launch "Hazel," for contruction and repairs	1

NOTE.—The number preceding the name of a light station in the Twelfth and Thirteenth districts is that by which it is designated in the List of Lights and Fog-Signals on the Pacific coast of the United States, corrected to February 1, 1902.

Thirteenth District.—This district extends from the boundary between California and Oregon to the northern boundary of the United States and includes Alaska. It embraces all aids to navigation on the seacoast of Oregon and Washington, on the United States waters of the Strait of Juan de Fuca, Washington Sound and the Gulf of Georgia, and on the tidal waters tributary to the sea, strait, sound and gulf between the limits named, together with those on Alaskan waters.

Inspector.—Commander William P. Day, United States Navy.

Engineer.—Captain William C. Langfitt, Corps of Engineers, United States Army.

There are in this district:

Light-houses and beacon lights, including 106 post lights	151
Light-vessels in position	2
Day or unlighted beacons	46
Fog-signals operated by steam, caloric, or oil engines	17
Fog-signals operated by clockwork	4
Whistling buoys in position	8
Bell buoys in position	5
Other buoys in position	289
Steamer "Manzanita," buoy tender, and for supply and inspection	1
Steamer "Columbine," for construction and repairs	1

Fourteenth District.—The Fourteenth District extends on the Ohio River from Pittsburg, Pa., to Cairo, Ill., 966 miles; on the Tennessee River, 255½ miles, and on the Great Kanawha, 73½ miles; in all, a distance of 1,295 miles, and embraces all the aids to navigation within these limits.

Inspector.—Commander W. H. Turner, United States Navy.

Engineer.—Colonel Garret J. Lydecker, Corps of Engineers, United States Army.

There are in this district:

Post lights	491
Floating lights	37
Light-keepers	487
Steam tender "Goldenrod," for supply and inspection	1
Number of day marks	4

Fifteenth District.—The Fifteenth District extends on the Mississippi River from the head of navigation to Cairo, Ill.; on the Missouri River to Kansas City, and on the Illinois River to La Salle, and includes all the aids to navigation within those limits.

Inspector.—Commander William A. Marshall, United States Navy.

Engineer.—Colonel Amos Stickney, Corps of Engineers, United States Army.

In this district there are:

Number of fixed and floating lights on June 30, 1902	505
Lights established	39
Lights discontinued	32
Day marks established	132
Day marks discontinued	64
Number of keepers	347
Number of channel marks	249
Number of trees cut down above 4 inches in diameter	1,747
Number of acres cleared of willows and underbrush	126⅜
Number of gallons of oil issued	12,651
Wicks issued, gross	34½
Steamer "Lily," for supply and inspection	1

Sixteenth District.—The Sixteenth District extends on the Mississippi River from Cairo, Ill., to New Orleans, La., and on the Red River a distance of 9 miles, and includes all aids to navigation within those limits.

Inspector.—Commander A. C. Dillingham, United States Navy.

Engineer.—Captain C. L. Porter, Corps of Engineers, United States Army.

In this district there are:

Post lights	391
Light-keepers	360
Laborers attending post lights dropped	141
Laborers attending post lights employed	155
Steamer "Joseph Henry," for supply and inspection	1

Weather Bureau Workings.

The Weather Bureau of the United States furnishes daily weather bulletins from its Washington office to the number of 100,000 or more, which contain forecasts of the weather throughout the country. These bulletins are sent by telegraph to the various weather stations, to railway officials, postmasters and others interested in weather conditions, all of whom are expected to communicate their forecasts to the public. This is done by means of small flags, conspicuously displayed, and five in number.

No. 1. White flag: means clear or fair weather.

No. 2. Blue flag: means rain or snow.

No. 3. White and blue flag: means local rain or snow.

No. 4. Black triangular flag: is the temperature flag.

No. 5. White flag with black square in centre: means cold wave.

When No. 4 is placed above No. 1, 2 or 3 it indicates warmer; when below, colder; when not displayed, the temperature is expected to remain about stationary. During the late spring and early fall the cold wave flag is also used to indicate anticipated frosts.

Storm Warning Flags.—There is also a system of flags whose use warns for storms. One of these is a simple pennant, whose position as to the other flags indicates wind directions. When the pennant is above the flag, the wind is northwest; when below, southwest; when the pennant is a dark one and above, the wind is northeast; when beneath, southeast.

A red flag with a black centre indicates that a storm of marked violence is expected. The pennants displayed with the flags indicate the direction of the wind: red, easterly (from northeast to south); white, westerly (from southwest to north). The pennant above the flag indicates that the wind is expected to blow from the northerly quadrants; below, from southerly quadrants.

By night a red light indicates easterly winds, and a white light above a red light, westerly winds.

Two red flags, with black centres, displayed one above the other, indicate the expected approach of tropical hurricanes, and also of those extremely severe and dangerous storms which occasionally move across the lakes and northern Atlantic Coast. Hurricane warnings are not displayed at night.

Steam Whistle Signals.—A warning of from fifteen to twenty seconds duration is sounded to attract attention. After this warning the longer blasts (of from four to six seconds duration) refer to weather, and shorter blasts (of from one to three seconds duration) refer to temperature; those for weather are sounded first.

One long blast indicates fair weather; two long blasts, rain or snow; three long blasts, local rain or snow; one short blast, lower temperature; two short blasts, higher temperature; three short blasts, cold wave.

Thermometers Compared.—There are three kinds of thermometers, with varying scales, in general use throughout the world—the Fahrenheit, boiling point, 212 degrees, freezing point, 32 degrees. Reaumur, freezing point zero; boiling point, eighty degrees. Centigrade, freezing point, zero; boiling point, 100 degrees.

The degrees on one scale are reduced to their equivalents on another by these formulas:

Fahrenheit to Reaumur—Subtract thirty-two, multiply by four-ninths.

Fahrenheit to Centigrade—Subtract thirty-two, multiply by five-ninths.

Reaumur to Fahrenheit—Multiply by nine-fourths, add thirty-two.

Reaumur to Centigrade—Multiply by five-fourths.

Centigrade to Fahrenheit—Multiply by nine-fifths, add thirty-two.

Centigrade to Reaumur—Multiply by four-fifths.

Weather Laws and Forecasts.

By Alfred J. Henry, Professor of Meteorology, Weather Bureau.

Purpose.—The purpose of this article is to promote the understanding of government weather forecasts and to encourage the making of local predictions by persons whose working hours are spent for the most part in the open air.

Time.—The time at the disposal of the forecast official of the Weather Bureau at the central office in Washington City for the purpose of forecasting probable weather changes, cold waves, and severe storms, is about thirty minutes in the morning and forty at night. It is impossible in this short time to do more than express the character of the anticipated changes for each State or district east of the Rocky Mountains in any but the most general terms. The local or State forecast official, on the other hand, is concerned with but a single district. He is at liberty to amplify the national forecasts or to put forth a statement of his own, in which the anticipated changes may be given in as much detail as the conditions seem to justify.

Persons who use the forecasts constantly should cultivate the habit of carefully noting the weather changes in their respective localities, especially the sequence in which such changes occur, for it is only by acquiring a knowledge of local weather signs that they can use government forecasts to the best advantage.

Daily Weather Forecasts.—The Weather Bureau issues from its Washington office two forecasts daily, at about 10 a. m. and 10 p. m. respectively. The observations on which the forecasts are based are made at 8 a. m. and 8 p. m., Eastern standard time. The morning forecast covers a period of twenty-four hours, beginning at 8 p. m. of the day on which the forecast is issued. The first twelve hours of the period is always referred to as "to-night;" the second is given the name of the day to which it may refer. Thus, "Fair to-night and Tuesday" would be the form of a forecast issued at 10 a. m. Monday. "To-night" in this case would begin at 8 p. m. Monday and run until 8 a. m. Tuesday, while Tuesday would end at 8 p. m. of that day, not midnight, as some might suppose. The forecast made at 10 p. m. is for a period of forty-eight hours. A forecast made on Monday night would take the form "Partly cloudy Tuesday and Wednesday." This forecast, it will be observed, does not apply to the night of either Tuesday or Wednesday.

Fair Weather.—"Fair weather"—that is, the absence of rain or snow—is indicated by several terms. The first of these is the word itself. It may be used singly or be preceded by the word "generally." "Generally fair," as used by the forecaster, is less positive than "fair" alone. It signifies that the probability of fair weather over the whole district and for the entire period is not so great as when "fair" alone is used.

Partly Cloudy.—"Party cloudy" is another expression that is used when the indications favor cloud but no precipitation. "Threatening" is used when in the judgment of the forecaster the weather will be overcast and gloomy, with the appearance of rain or snow at any moment, yet a measurable amount of precipitation is not anticipated.

Rain or Snow.—A forecast of "rain" or "snow" may be expressed in various ways. In the late fall, early spring, and the winter season it is most commonly indicated by the single word "rain" or "snow," as the case may be, thus: "Rain to-night." And when used in this form it is expected that the rain will continue for several hours. In other seasons of the year any one of the following terms, viz, "local rain," "showers," and "thunder storms," may be used. Local rains and showers are almost identical in meaning. The word "thunder storm," of course, carries its own significance. Any one of these terms indicates that the rain will not be general over the whole state or district. The most marked feature of precipitation in the warm season, as compared with the cold, is its unequal distribution over relatively small areas. A shower cloud may form and pass over several counties or it may dissipate within five miles of its origin. Indeed, we may say that it is only in exceptional cases that general and continuous rains fall in the summer season. In some seasons local rains may ocur in some part of a State every day of the month, but the science of meteorology is not yet far enough advanced to delimit the path of a local shower and the exact time of its occurrence.

Precipitation.—Forecasts of local rains, showers, or thunder storms indicate that the conditions are favorable for the occurrence of precipitation in the district and for the given period.

Clearing.—"Clearing" is a word frequently used which carries a broader meaning than the word itself signifies, viz, the occurrence of precipitation in the early part of the period; thus "Clearing to-night" would indicate that rain or snow, whichever might be falling at the beginning of the period, would cease shortly thereafter and that the weather would be clear during the greater part of the time.

Local Signs.—Persons whose working hours are largely spent in the open air soon become familiar with the changing aspects of the sky and the condition of the atmosphere as to its moisture content, viz, whether relatively dry or humid. If careful observers of natural phenomena, they note also the shift of the wind and the sequence of weather which follows. In this way and without special effort a fund of weather wisdom is soon acquired which needs only to be properly correlated in order to serve a most useful purpose. The greatest advantage will naturally accrue to the individual who reads and accurately interprets not only the government forecasts, but also the local weather signs.

Clouds.—Clouds are formed from the moisture that is always in the air, in varying quantities, even over the desert. Like the air itself, the moisture that is within it is invisible so long as it remains in the form of a gas. When a mass of air is cooled by any means whatsoever a portion of its water vapor is condensed and becomes visible—a mist or cloud is formed. A familiar illustration of cloud formation in nature is afforded when a current of warm, moist air strikes a cold mountain. The colder surface of the mountain condenses some of the moisture that is in the air, forming a cloud which frequently obscures the top of the mountain and floats away in the prevailing winds. This simple phenomenon indicates to an observer on the leeward side of the mountain that a warm, moist current of air, with probably rain or snow, is approaching. In some parts of the world the formation of a cloud cap on a mountain top is not an indication of precipitation, yet in the majority of cases it is believed to be a reliable prognostic of falling weather. In general, the formation of cloud after a clear spell is the first sign of coming rain. Unfortunately, there is no definite interval between the time of the first appearance of clouds and the occurrence of rain. Rain may not fall for several days after the first appearance of clouds, and, on the other hand, it may begin within two or three hours after the first cloud makes its appearance.

Temperature and Moisture.—An increase in the amount of moisture in the air is indicated in various ways. It is especially noticeable to the senses when coupled with a high temperature. Man does not need a thermometer to tell him that the air is oppressively warm, nor a hygrometer to tell him that there is an unusual amount of moisture present. A pitcher of ice water on a hot summer day is not a bad sort of hygrometer. The pitcher is naturally cooler than the surrounding air, and consequently some of the water vapor in the air is condensed and collects on the outside of the pitcher. It will be remembered that water vapor changes to the liquid state when the air is cooled below a certain point. The principle illustrated by the pitcher of ice water is repeated on a grand scale in nature every time rain or snow falls. First, there is the cooling of the air and the formation of cloud, the latter being composed of minute particles of water; second, there is the further cooling of the cloud mass, so that its particles join to form small raindrops, which fall to the earth by their own weight. When a rain cloud strikes the top of a mountain, rain does not necessarily fall, but small mist-like particles of water are deposited on the relatively colder surfaces of the rocks and other objects on the mountain sides and top. These particles coalesce and run down the sides of the objects on which they are deposited precisely as frequently happens on a pitcher of ice water on a warm, humid day. If the mountain were warmer than the cloud mass there would be no condensation, but some of the moisture of the cloud would be evaporated and float away in the prevailing winds.

Summer Moisture.—An unusual amount of moisture in the air in summer produces a feeling of closeness; physical labor is more enervating than when the air is dry and crisp. The change from sultry, oppressive weather is nearly always brought about by a series of thunderstorms, sometimes lasting over two days.

Summary.—Summarizing the indications that may be drawn from the temperature and moisture of the air, it would appear that an increase in the amount of moisture in the air is a sign of a change from fair to foul weather, both winter and summer. In the colder months an increase in the temperature of the air above the average for the season, coupled with an increase in moisture, is a sign of rain or snow within twenty-four to forty-eight hours. In the summer an increase of temperature alone is not always an indication of rain. But these are not infallible rules. The old proverb "All signs fail in dry weather" is as true today as when first formulated.

Wind and Its Changes.—The wind is less prophetic in character than the clouds, since it is affected by the form of the land over which it blows. Thus, it has a tendency to blow up a valley in the daytime and in the contrary direction at night, no matter in what direction the valley may extend. Winds also have a tendency to blow toward and up the sides of a mountain slope in the daytime and down the side of a mountain at night, and this movement of the air generally extends for some distance out from the foot of the mountain on the level slopes. There are also the well-known land and sea breezes of all countries where, during the twenty-four hours of the day, the temperature of the land becomes alternately warmer and colder than that of the sea. These winds (valley, mountain, land, and sea breezes) are called diurnal winds. They are caused by differences in temperature that are not general, but confined to the valley or mountain slope of a particular locality. In order that these differences of temperature may arise there must be clear weather and unobstructed sunshine. It is easily seen then that all such winds must be most active in fair weather, and that when they cease, or fail to appear at the usual time, the atmosphere as a whole must have come under an influence greater than that which produced the diurnal winds.

Noting the Winds.—In the open country or other exposed situation where the true direction of the wind can be determined, it should be noticed first, what is the prevailing direction of the wind in fair weather, and what is the direction from which storms usually come. The direction of the wind during the twenty-four hours immediately preceding the storm should be especially noticed. To do this a short journal or diary of the weather should be kept. The direction of approach of storms in the United States varies in different localities. It is quite important that each observer determine for his immediate neighborhood the shift of the wind with the approach of storms, during the colder months at least.

Warm Month Winds.—In the warm months the winds are light and rather variable, and changes in direction have not the same importance as in the colder months. The rain of summer generally occurs in connection with thunder storms; it will be found that these are most frequent for a certain direction and with the wind in a particular quarter. Beyond the fact that more thunder storms come from a westerly quarter than from any other direction, little can be said that will be of value in forecasting their approach by the direction of the surface winds only. The coming of a thunder storm can generally be foretold a few hours in advance by the form and movement of the clouds.

Winter Winds.—In the colder months, viz, November, December, January, February, March, and April, the winds are stronger than at other seasons of the year, and storms also move with greater rapidity. The signs of falling weather in the colder months are the formation of a high sheet cloud covering the whole sky, an increase in the temperature and moisture of the air, and the change of the wind to some easterly quarter. The precise direction that the wind takes, whether northeast, east or southeast, varies for different localities and the direction from which the storm is approaching. In New England, the Middle States, and the Ohio Valley northeasterly winds precede storms that approach from the southwest, and southeasterly winds precede storms that approach by way of the Lake region. On the Pacific coast southeasterly and southerly winds precede rain storms. In Wyoming and other Northwestern States the heavy snowstorms of winter and spring generally come from the north or northwest with a strong wind from the same direction. The direction of the wind depends very much on the position of traveling storms that pass across the country.

Winter Storms.—The storms of the cold season have certain well-marked characteristics that should be easily recognized by every worker in the open air. These are: (1) The changes in the aspect of the sky; (2) the direction of the wind before, during, and after the storm; and, (3) the shift of the wind, whether with or against the sun.

The clouds that precede the storm by from twenty-four to thirty-six hours are almost invariably light and wispy cirrus. Soon after the appearance of clouds of this class a sheet cloud forms at a slightly lower elevation and gradually thickens until the sun is hidden.

The subsequent clouds are much darker than those above mentioned, and appear to form at much lower elevations. When the sky becomes overcast the wind generally freshens, the temperature rises, and the air becomes humid; in popular speech, "it feels like rain."

Low and High Pressure.—The weather experienced from day to day depends upon the frequency and the course followed by areas of low pressure, and the succeeding areas of high pressure which generally follow them. These are exceedingly variable both as to direction and rate of movement. Some move rapidly from the Northeastern Rocky Mountain slope to the maritime provinces of Canada at a uniform rate, while others have a rapid rate of progression at the beginning, but quickly slow down and finally cease to move.

LOSS OF PROPERTY BY TORNADOES IN LAST EIGHT YEARS.

Alabama	$69,700	Indian T.	$45,000	Michigan	$650,000	N. Carolina	$24,000	Tennessee	$95,500
Arkansas	1,054,800	Iowa	799,000	Minnesota	608,000	N. Dakota	900	Texas	739,800
California	1,200	Kansas	1,049,700	Mississippi	432,000	Ohio	466,500	Virginia	3,200
Colorado	800	Kentucky	2,935,000	Missouri	13,285,900	Oklahoma	165,000	W. Virginia	6,000
Florida	2,000	Louisiana	172,000	Nebraska	678,000	Pennsylvania	715,000	Wisconsin	217,600
Georgia	276,150	Maine	13,000	N. Hampshire	6,000	S. Carolina	14,800		
Illinois	1,290,200	Maryland	35,000	N. Jersey	91,000	S. Dakota	140,000		$26,633,750
Indiana	45,500	Massachusetts	60,000	N. York	472,000				

Facts About Lightning and Electricity in Air.

History.—In 1890 a system of inquiry was begun by the Weather Bureau into the frequency of lightning strokes and the fatalities and damage they occasion in the United States. The results were arranged by Alfred J. Henry, Professor of Meteorology in the Bureau, and given to the public in 1902. They are here found in synoptic form.

Thunderstorms.—It is obvious that the fatalities from lightning must depend partly upon the frequency of strokes per unit of area, partly upon the density of population, and partly upon the character of the thunderstorms which traverse the region. In the United States, thunderstorms occur with considerable frequency all over the territory east of the one hundredth meridian. West of that meridian, except in the Rocky Mountain region, the frequency steadily diminishes, reaching practically zero on the Pacific coast. There are three regions of maximum thunderstorm frequency, viz, one in the Southeast with its crest over Florida, one in the Middle Mississippi Valley, and one in the Middle Missouri Valley. The average number of days annually with thunderstorms in the first-named region is 45; in the second, 35; and in the last, 30.

Fatal Cases.—The statistics for the five years, 1896-1900, show that the greatest number of fatal cases of lightning stroke occurred in the Middle Atlantic States, and the next greatest in the Ohio Valley and Tennessee, with the Middle and Upper Mississippi Valley a close third. The greatest number of deaths in any single State during those five years occurred in Pennsylvania—186—followed by Ohio with 135, and Indiana, Illinois and New York with 124 each. The greatest fatality from a single stroke occurred at Chicago, Ill., where 11 persons, huddled together in a zinc-lined shanty under a North Shore pier, met instant death by a single bolt.

Chances of Being Struck.—As already stated, the chance of being struck by lightning depends on the frequency of lightning stroke per unit of area, which unit has been taken as 10,000 square miles; also on the density of population, the rate per million of total population being taken. In addition, the rate per million of rural population has entered into the computation. Comparison of the figures under each of these heads shows that in the Gulf States the average number of deaths due to lightning per unit area is but 1, although the average thunderstorm frequency is quite high. In New England, with probably only half as many thunderstorms, the death rate per unit area is 2. There being no large cities in the South, the rate per million of population and of total population is practically the same, viz, 6 and 5 in the Gulf States, and 9 and 8, respectively, in the South Atlantic States.

Chances in Cities.—A belief that the chance of injury by lightning in the cities is less than in the country is rather general. What foundation, in fact, such a belief has is hard to determine. It is not sufficient to show simply that a given area in any city is free from lightning stroke. It must be shown that an equal area outside of the city is subject to lightning stroke. When the combined area of the large cities is compared with the immense territory embraced in the rural districts it is not surprising that so few lightning strokes fall in cities. The modern city building, with its metallic roof and steel frame, is a fairly good conductor of electricity, and is in much less danger of receiving a damaging stroke of lightning than an isolated dwelling in the open country. The multiplication of telegraph, telephone and electric light wires in cities also adds to the effectiveness of silent discharges in relieving the electric tension during a thunderstorm; but should a cloud with a tremendous store of energy quickly approach, all of the wires in ten cities would not prevent it from discharging right and left until its store of energy had been dissipated.

Death Rate per Million.—In New England the death rate by lightning per million of rural inhabitants is nearly double that per million of total population, and the same holds true of the densely-populated districts of the Middle Atlantic States. The large urban population of New York reduces the rate per million of total population in that State to but three, whereas in the neighboring State of Pennsylvania it is six. Both States are subject to practically the same atmospheric conditions and have the same percentage of deaths by lightning, if rural population only be considered. We should therefore infer that statistics of death by lightning based on total population are not comparable except for areas having about the same density of population.

Regions of Greatest Mortality.—The greatest mortality by lightning, considering both unit area and density of population, is in the Ohio Valley and Middle Atlantic States; if, however, density of population only be considered, it is in the Upper Missouri Valley and the middle Rocky Mountain region. The record of deaths by lightning in the middle Rocky Mountain region is rather surprising, in view of the vast extent of territory involved, the diversified character of its topography, and the sparsity of its population. The very large mortality in the mountainous States of Colorado, Montana and Wyoming and in the two Dakotas should emphasize the necessity on the part of persons living in those States of taking all known precautions to avoid the danger of lightning stroke.

Seasons for Thunderstorms.—Thunderstorms in the United States are not limited to the warm season, although a great majority of such storms happen in the months of June, July and August. Winter thunderstorms are not infrequent in the Gulf States, and occasionally extend northeastward along the Atlantic coast to Massachusetts. At the close of winter the region of most frequent thunderstorms is in the Lower Mississippi Valley. In the spring months the area of greatest frequency extends rapidly northward, overspreading the Upper and Middle Mississippi and the Missouri Valleys by the end of April. The rainy season of the Great Plains region and the northeastern Rocky Mountain slope sets in about the end of April, and from that time to about the middle or end of June thunderstorms are of frequent occurrence. The season of greatest thunderstorm frequency east of the Alleghenies, especially in New England, does not set in until about the first of July, but lasts well into September.

Kinds of Thunderstorms.—Thunderstorms are of two kinds, viz, heat and cyclonic, although it is quite probable that the great majority are a combination of these two forms. A third class, viz, winter thunderstorms, is sometimes added. In the United States winter thunderstorms may be classed as cyclonic, since they are rarely observed, except in connection with a well-marked cyclonic storm. Heat thunderstorms, as well as cyclonic, depend principally upon a convectional overturning of the atmosphere. The unstable condition may result from local heating in moist, quiet air, not under the domination of either cyclonic or anticyclonic systems. Thunderstorms occurring under such conditions fall under the first head. Their sphere of action is generally limited and they die away at nightfall, reappearing the next day and for many days in succession in particularly favorable regions. The Florida Peninsula is advantageously conditioned with respect to the development of heat thunderstorms. So also, are the many parks and valleys of Colorado and adjoining States in the Rocky Mountain region, where heat thunderstorms are of daily occurrence in the summer season.

Cyclonic Thunderstorms.—Cyclonic thunderstorms, as the name indicates, occur in connection with cyclonic disturbances, which generally move in an easterly direction over the northern third of the United States east of the Rocky Mountains. These storms are not necessarily confined to the southeastern quadrant of the cyclone, as has been frequently stated. In the northeastern Rocky Mountain slope and the Upper Missouri Valley they occur most frequently in the northwest quadrant of the storm on the dividing line between the cool westerly and warm southerly winds. East of the Alleghenies they occur more frequently at the moment the centre of the disturbance passes. They also occur along the Middle Atlantic coast when the centre of the disturbance has reached the mouth of the St. Lawrence. Some of the most violent thunderstorms occur when the pressure gradients are weak and the cyclonic circulation of the winds uncertain and ill defined. In fact, a well-defined storm with moderate gradients and fresh winds is detrimental to thunderstorm formation.

Self Protection.—It is not judicious to stand under or near trees during thunderstorms, in the doorways of barns, close to cattle, near chimneys, and fireplaces, or near the terminus of a wire clothesline. Avoid suspending the latter between a corner of the house and a convenient tree; rather let it be hung from one tree or post to another. On the other hand, there is not much sense in going to bed, or trying to insulate oneself in feather beds. Small articles of steel, also, do not have the power to attract lightning, as it is popularly put, or determine the path of a discharge.

Mental Effect of Thunderstorms.—Just in advance of thunderstorms, whether because of the varying electric potential of the air, or of the changing condition of temperature, humidity, and pressure, and failure of the nervous organization to respond quickly, or to whatever cause it may be due, it cannot be denied that there is in certain individuals much suffering from depression at these times. It is, perhaps, possible that these sufferings may be alleviated. Apart from this many persons suffer greatly from alarm during the prevalence of thunderstorms, somewhat unnecessarily, it is thought. Grant even that the lightning is going to strike closely in one's vicinity. There are many flashes that are of less intensity than we imagine, discharges that the human body could withstand without permanent serious effects. "Heaven has more thunder to alarm than thunderbolts to punish," is both pithy and truthful. One who lives to see the lightning flash need not concern himself much about the possibility of personal injury from that flash.

DEATHS BY LIGHTNING.

Months.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Totals per month.
January	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	3
February	. .	. .	. .	. .	2	. .	1	1	. .	1	. .	5
March	2	. .	. .	5	6	5	6	11	1	10	2	48
April	6	13	5	19	14	29	26	8	2	11	24	157
May	8	23	27	17	45	66	71	44	44	108	102	555
June	37	73	74	66	96	109	45	107	71	128	168	974
July	55	52	67	73	60	123	89	109	110	120	202	1060
August	12	34	54	18	78	78	75	61	86	133	166	795
September	. .	9	15	8	29	16	21	14	41	43	31	227
October	. .	. .	6	2	5	. .	6	3	12	2	17	54
November	. .	. .	1	. .	. .	. .	1	4	. .	4	1	11
December	. .	. .	2	4	. .	. .	. .	. .	. .	. .	. .	3
Annual	1201	204	251	209	336	426	341	362	367	563	713	3772
Average	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	377

It will be seen from the above table that 713 persons were killed or received fatal injuries by lightning in the year 1900. Of this number 291 persons were killed in the open, 158 in houses, 57 under trees, and 56 in barns. The circumstances attending the death of the remaining 151 are not known.

Persons Injured.—During 1900, 973 persons were more or less injured (not fatally) by lightning stroke. Of this number 327 persons received their injuries while in houses, 243 in the open, 57 in barns, and 29 under trees. The circumstances attending the injury of the remaining 317 cases are not known.

Other Lightning Losses.—The total property loss by lightning in 1900 was $3,453,925, and in 1899, $3,016,520. In the latter year the deaths of persons by lightning numbered 563; the damage strokes numbered 5,527; buildings injured, 6,256; persons injured, 820; live-stock killed, 4,251; value of live-stock killed, $129,955.

Treatment of Lightning Stroke.—If one should be in the vicinity of a person who has just been struck by lightning, no matter if the person struck appears to be dead, go to work at once and try to restore consciousness. There are many cases on record proving the wisdom of this course; and there is reason for believing that lightning often brings about suspended animation rather than somatic death. Try to stimulate the respiration and circulation. Do not cease in the effort to restore animation in less than one hour's time. Manipulate the arms and use artificial respiration.

Warmth.—No matter which method of inducing respiration is adopted, it is important to maintain the warmth of the body by the application of hot flannels, bottles of hot water, hot bricks, warm clothing taken from bystanders, etc.

Friction.—Firmly and energetically rub the limbs upward so as to force the blood to the heart and brain. If an assistant is present, let him attend to this. Remember above all things that nothing must interrupt your efforts to restore breathing.

Stimulants.—When swallowing is established, a teaspoonful of warm water, wine, diluted whiskey or brandy, or warm coffee should be given. Sleep should be encouraged. In brief:

1. Make the subject breathe by artificially imitating the respiratory movements of the chest.
2. Keep body warm.
3. Send for a physician.

Lightning Marks.—Of the visible effects of lightning stroke upon the human body little more can be said than that sometimes burns, usually superficial, have been noticed, frequently red lines or markings, which are localized congestions of the small blood vessels of the skin. These, from their irregularities and branchings, have led to the fanciful idea of photographs of trees, etc.

Heart Effects.—In conclusion, it may be said that lightning frequently causes a temporary paralysis of the respiration and heart beat, which if left alone will deepen into death, but intelligently treated will generally result in recovery.

AVERAGE TEMPERATURES.

St. Paul, Minn.	42°	Boston, Mass.	48°	Leavenworth, Kan.	52°	Baltimore, Md.	54°	Ft. Gibson, I. T.	60°
Montpelier, Vt.	43°	Denver, Col.	48°	Indianapolis, Ind.	51°	St. Louis, Mo.	55°	Columbia, S. C.	62°
Helena, Mont.	43°	Omaha, Neb.	49°	Romney, W. Va.	52°	Washington, D. C.	55°	Little Rock, Ark.	63°
Madison, Wis.	45°	Des Moines, Iowa	49°	Ft. Boise, Idaho	52°	San Francisco, Cal.	55°	Jackson, Miss.	64°
Augusta, Me.	45°	Camp Scott, Nev.	50°	Portland, Ore.	53°	Louisville, Ky.	56°	Mobile, Ala.	66°
Concord, N. H.	46°	Springfield, Ill.	50°	Columbus, O.	53°	Richmond, Va.	57°	Austin, Tex.	67°
Detroit, Mich.	47°	Hartford, Conn.	50°	Trenton, N. J.	53°	Nashville, Tenn.	58°	New Orleans, La.	69°
Providence, R. I.	48°	Starlacoom, Wash.	51°	Wilmington, Del.	53°	Atlanta, Ga.	58°	Jacksonville, Fla.	69°
Albany, N. Y	48°	Santa Fé, N. M.	51°	Harrisburg, Pa.	54°	Raleigh, N. C.	59°	Tucson, Ariz.	69°

The Climate of Alaska.

[*From Reports of the Weather Bureau.*]

Temperate Alaska.—The general conception of Alaskan climate is largely due to those who follow the sea, and this is not strange when we consider the vast extent of shore line (over 26,000 miles) possessed by that Territory. The climates of the coast and the interior are unlike in many respects, and the differences are intensified in this as, perhaps, in few other countries by exceptional physical conditions. The natural contrast between land and sea is here tremendously increased by the current of warm water that impinges on the coast of British Columbia, one branch flowing northward toward Sitka, and thence westward to the Kadiak and Shumagin islands. The fringe of islands that separates the mainland from the Pacific Ocean from Dixon Sound northward, and also a strip of the mainland for possibly twenty miles back from the sea, following the sweep of the coast as it curves to the northwestward to the western extremity of Alaska, form a distinct climatic division, which may be termed temperate Alaska.

Average Temperature.—The temperature rarely falls to zero; winter does not set in until about December 1, and by the last of May the snow has disappeared except on the mountains. The mean winter temperature of Sitka is 32.5°, but little less than that of Washington, D. C. While Sitka is fully exposed to the sea influence, places farther inland, but not over the coast range of mountains, as Killisnoo and Juneau, have also a mild temperature throughout the winter months. The temperature changes from month to month in temperate Alaska are small, not exceeding 25° from midwinter to midsummer. The average temperature of July, the warmest month of summer, rarely reaches 55°, and the highest temperature for a single day seldom reaches 75°.

Rainfall.—The rainfall of temperate Alaska is notorious the world over, not only as regards the quantity that falls, but also as to the manner of its falling, viz: In long and incessant rains and drizzles. Cloud and fog naturally abound, there being on an average but sixty-six clear days in the year.

Contrasts.—Alaska is a land of striking contrasts, both in climate as well as topography. When the sun shines the atmosphere is remarkably clear; the scenic effects are magnificent; all nature seems to be in holiday attire. But the scene may change very quickly; the sky becomes overcast; the winds increase in force; rain begins to fall; the evergreens sigh ominously, and utter desolation and loneliness prevail.

Northern Climate.—North of the Aleutian Islands the coast climate becomes more rigorous in winter, but in summer the difference is much less marked. Thus, at St. Michael, a short distance above the mouth of the Yukon, the mean summer temperature is 50°, but 4° cooler than Sitka. The mean summer temperature of Point Barrow, the most northerly point in the United States, is 36.8°, but four-tenths of a degree less than the temperature of the air flowing across the summit of Pike's Peak, Colorado. The rainfall of the coast region north of the Yukon delta is small, diminishing to less than 10 inches within the Arctic Circle.

Interior Climate.—The climate of the interior, including in that designation practically all of the country except a narrow fringe of coastal margin and the territory before referred to as temperate Alaska, is one of extreme rigor in winter, with a brief but relatively hot summer, especially when the sky is free from cloud.

Sunrise and Sunset.—In the Klondike region in midwinter the sun rises from 9.30 to 10 a. m., and sets from 2 to 3 p. m., the total length of daylight being about four hours. Remembering that the sun rises but a few degrees above the horizon and that it is wholly obscured on a great many days, the character of the winter months may easily be imagined.

OFFICIAL

FACTS and FIGURES

A VOLUME OF INDISPENSABLE DATA FOR
THE STUDY, COUNTING-ROOM, EDITOR'S
CHAIR, SCHOOL, HOME AND WORKSHOP

INVENTIONS AND DISCOVERIES
With Inventors' Names and Dates

LOUISIANA PURCHASE EXPOSITION
Significance, Site, History, Equipment

NOTABLE AMERICAN SOBRIQUETS
Pen-names, Nick-names, Appellations,
Fictional Characters . . .

POSTAL LAWS AND SERVICE OF THE UNITED STATES

TARIFF RATES ON IMPORTS

CLEANLINESS, SANITATION AND HOME MANAGEMENT

AN IMPERIAL STOREHOUSE

OF THE

USEFUL, CURIOUS and REMARKABLE

Among the Interesting and Exhaustless Exhibits are found:

Time Standards in the U. S.
Bell-time on Shipboard
Facts of 1850 Compared with 1900
Origin of our Calendar
Our Forest Trees
Pork Centres of the U. S.
Startling Facts About the Earth
Patent Office Statistics
Comparative Weights of Articles

Fuel Value of Woods
How to Mix Colors
A Trip Around the World
Box, Bin and Acre Measurement
Ages and Breeding Periods
Temperatures and Respirations
School Ages in All States
Slaughtering and Packing Industry, etc.

INVENTIONS AND DISCOVERIES—INVENTORS AND DATES

THE ST. LOUIS EXPOSITION

Significance, Site, History, Equipment

Notable American Sobriquets. Postal Laws and Postal Service.

Tariff on Imports Under the Dingley Act

CLEANLINESS, SANITATION, HOME MANAGEMENT

Care of the Person
Toilet Rules and Suggestions
Composition of Foods
Effect of Cooking on Foods

Digestion and Nutrition
Protection of Fruits
Weights and Measures

Official Facts and Figures.

Interesting and Remarkable Data.

In 1850 there were only two estates in the city of New York assessed for as much as $1,000,000. Outside of New York there were no millionaires reported. To-day there are over 3,000 millionaires in the United States.

States.—In 1850 there were thirty-one States and seven Territories.

Population—The population of the United States in 1850 was 23,263,488, of which 3,632,750 were colored, and of these 3,204,089 were slaves. The foreign population was 2,249,993. No inhabitants were returned for Nebraska Territory, Northwest Territory, or Washington Territory. Kansas City, Minneapolis, Denver, had not been founded. In 1850 the estate of Stephen Girard, estimated at $8,000,000, ranked as the largest in America. To-day there are scores of men worth $50,000,000, and two reputed to be worth $300,000,000.

Lands.—Farm statistics for 1850 showed: improved farm lands, 118,457,622 acres; unimproved, 184,621,348. Total cash value, $3,270,733,093; average value of an acre, $10.79.

Production.—For the census year 1850 the yield of crops was: wheat, 100,503,890 bushels; corn, 509,326,619; oats, 146,567,879; rye, 14,188,639; potatoes, 65,796,793.

Live Stock.—As to live stock, the census figures for 1850 were: horses numbers, 4,335,358; mules, 559,229; cows, 6,392,044; oxen, 1,699,241; beef cattle, 10,268,856; sheep, 21,721,814; hogs, 30,316,608; total value of live stock, $543,960,420.

Churches.—Total number in 1850, 36,011; value of church property, $86,416,639.

Urban Populations.—In 1850 the population of leading cities was: New York, 515,507; Philadelphia, 408,815; Boston, 138,788; Baltimore, 189,048; Chicago, 29,963; St. Louis, 104,978; Cincinnati, 115,436; New Orleans, 119,461; San Francisco, 34,876; total population of United States, 23,263,488.

Commerce.—The figures of 1850 showing commerce were: miles of railroad completed, 10,843 miles; tonnage entering the United States, 4,348,639 tons; tonnage clearing the United States, 4,361,002 tons; value of exports, $136,946,912; of imports, $178,138,310.

Government Statistics.—These for the census year 1850 were: total of public debt, $64,228,238; total revenue from customs, $39,668,686; total receipts of government, $43,375,798; total expenses of government, $43,002,168; total value of coinage, $33,892,301.

Manufactures.—The figures of 1850 were as follows: cotton goods, hands employed, 92,286; value of products, $61,869,184; woolen goods, hands employed, 39,252; value of products, $43,207,555; pig iron, number of plants, 377; capital invested, $17,346,425; value of products, $12,748,777; cast iron, number of plants, 1,391; capital invested, $17, 416,361; value of products, $25,108,155; wrought iron, number of plants, 422; capital invested, $14,495,220; value of products, $16,747,074; total capital invested in various manufactures of the United States amounted in round numbers to $530,000,000; total number of persons employed, $1,050,000; aggregate cost of labor, $240,000,000; value of articles consumed, $1,020,300,000.

Time Standard in the United States.

In the year 1883 a time standard was established in the United States by mutual agreement between the leading railroads, for their convenience in running trains, and for the regulation of local time. By this system, the United States, extending from 65° to 125° west longitude, is divided into four time sections, each of 15° of longitude, exactly equivalent to one hour, commencing with the 75th meridian. The first (eastern) section includes all territory between the Atlantic coast and an irregular line drawn from Detroit to Charleston, S. C., the latter being its most southern point. The second (central) section includes all the territory between the last-named line and an irregular line from Bismarck, N. D., to the mouth of the Rio Grande. The third (mountain) section includes all territory between the last-named line and nearly the western borders of Idaho, Utah, and Arizona. The fourth (Pacific) section covers the rest of the country to the Pacific coast. Standard time is uniform inside each of these sections, and the time of each section differs from that next to it by exactly one hour. Thus at 12 noon in New York city (eastern time), the time at Chicago (central time) is 11 o'clock a. m.; at Denver (mountain time), 10 o'clock a. m.; and at San Francisco (Pacific time), 9 o'clock a. m. Standard time is 16 minutes slower at Boston than true local time, 4 minutes slower at New York, 8 minutes faster at Washington, 19 minutes faster at Charleston, 28 minutes slower at Detroit, 18 minutes faster at Kansas City, 10 minutes slower at Chicago, 1 minute faster at St. Louis, 28 minutes faster at Salt Lake City, and 10 minutes faster at San Francisco.

Keeping Bell Time Aboard Ship.

Time, a. m.: 1 bell, 12.30; 2 bells, 1.00; 3 bells, 1.30; 4 bells, 2.00; 5 bells, 2.30; 6 bells, 3.00; 7 bells, 3.30; 8 bells, 4.00; 1 bell, 4.30; 2 bells, 5.00; 3 bells, 5.30; 4 bells, 6.00; 5 bells, 6.30; 6 bells, 7.00; 7 bells, 7.30; 8 bells, 8.00; 1 bell, 8.30; 2 bells, 9.00; 3 bells, 9.30; 4 bells, 10.00; 5 bells, 10.30; 6 bells, 11.00; 7 bells, 11.30; 8 bells, noon.

Time, p. m.: 1 bell, 12.30; 2 bells, 1.00; 3 bells, 1.30; 4 bells, 2.00; 5 bells, 2.30; 6 bells, 3.00; 7 bells, 3.30; 8 bells, 4.00; 1 bell, 4.30; 2 bells, 5.00; 3 bells, 5.30; 4 bells, 6.00; 1 bell, 6.30; 2 bells, 7.00; 3 bells, 7.30; 4 bells, 8.00; 1 bell, 8.30; 2 bells, 9.00; 3 bells, 9.30; 4 bells, 10.00; 5 bells, 10.30; 6 bells, 11.00; 7 bells, 11.30; 8 bells, midnight.

Origin of Our Calendar.

Our present, or, as it is called, the Gregorian calendar was introduced by Pope Gregory XIII., and began to succeed the old Julian calendar in 1582. It had for its leading object the keeping of the equinox to the same day of the month. It consists of 365 days, but every year exactly divisible by 4 and the centurial years which are exactly divisible by 400 contain 366 days; and if in addition to this arbitrary arrangement the centurial years exactly divisible by 4,000 contain 366 days, the error in the Gregorian system will amount to only one day in about 20 centuries. If, however, 31 leap years were intercalated in 128 years, instead of 32 as at present, the calendar would be practically exact and the error would not amount to more than a day in 100,000 years. The length of the mean Gregorian year may therefore be set down at 365 days, 5 hours, 49 minutes, 12 seconds. The Gregorian calendar was introduced into England and her colonies in 1752, at which time the equinox had retrograded 11 days since the Council of Nice in A. D. 325, when the festival of Easter was established and the equinox occurred on March 21; hence September 3, 1752, was called September 14, and at the same time the commencement of the legal year was changed from March 25 to January 1, so that the year 1751 lost the months of January and February and the first 24 days of March. The difference between the Julian and Gregorian calendars is now 13 days. Russia and the Greek Church still employ the Julian calendar for civil and ecclesiastical purposes.

PORK CENTRES OF THE UNITED STATES.

Hogs Killed, Packed and Marketed.

Places.	Number.	Places.	Number.	Places.	Number.
Chicago	7,268,515	Ottumwa	653,785	Other Places East	1,046,000
Kansas City	2,981,288	Cleveland	500,785	Receipts at New York, Philadelphia and Baltimore	2,620,000
Omaha	2,241,599	Louisville	360,425		
St. Louis	1,566,550	Sioux City	733,754		
Indianapolis	1,185,600	St. Paul	514,385	Total 1902	30,395,000
Cincinnati	617,032	Nebraska City	114,962	" 1903	25,245,000
Milwaukee and Cudahy	911,256	Other Places West	1,731,053	" 1904	27,617,000
St. Joseph	1,723,377	Boston	1,370,000		
Cedar Rapids	496,308	Buffalo	343,000		

IMPORTANT FOREST TREES OF THE UNITED STATES.

White pine,
Sugar pine,
Cuban pine,
Balsam fir,
Noble fir,
Hemlock,
Tamarack,
Tulip tree,
Sugar maple,
White elm,
Basswood,
Cottonwood,
Long leaf pine,
Short leaf pine,
Black spruce,
White spruce,
Douglas spruce,
Ball cypress,
Western larch,
Red juniper,
Arbor vitae,
Big-tree,
Swamp white oak,
Beech,
Black walnut,
Pecan,
White cedar,
Redwood,
White oak,
Bur oak,
Chestnut,
Shag bark hickory.
Locust,
White ash,
Red maple,
River birch,
Sycamore,
White willow.

TWO SERIES OF REMARKABLE NUMBERS.

1 times 9 plus 2 equals 11.
12 times 9 plus 3 equals 111.
123 times 9 plus 4 equals 1111.
1234 times 9 plus 5 equals 11111.
12345 times 9 plus 6 equals 111111.
123456 times 9 plus 7 equals 1111111.
1234567 times 9 plus 8 equals 11111111.
12345678 times 9 plus 9 equals 111111111.
1 times 8 plus 1 equals 9.
12 times 8 plus 2 equals 98.
123 times 8 plus 3 equals 987.
1234 times 8 plus 4 equals 9876.
12345 times 8 plus 5 equals 98765.
123456 times 8 plus 6 equals 987654.
1234567 times 8 plus 7 equals 9876543.
12345678 times 8 plus 8 equals 98765432.
123456789 times 8 plus 9 equals 987654321.

RURAL FREE DELIVERY.

Its Rapid Progress in the United States.

Routes in operation, 1896	130
Routes established by 1902	7,000
Carriers in service, July, 1902	9,300
Appropriation for 1898	$50,000
Appropriation for 1902	$4,000,000
Territory covered, 1902 (square miles)	250,000
Population served, 1902	4,500,000
Pieces served, 1901	151,259,160
Pieces served, 1902	300,000,000

RATES OF WAGES.

The following table shows the changes in the compensation of laborers from 1850 to the present time, according to the Census reports. In the table given below the average wage per person for the successive Census years is shown:

1900	$438
1890	445
1880	347
1870	377
1860	289
1850	247

CONSUMPTION OF COFFEE.

United States	11	Pounds	Per	Capita.
Germany	7	"	"	"
France	5	"	"	"
Austria-Hungary	2	"	"	"
Italy	1	"	"	"
United Kingdom	1	"	"	"

COLLARS AND CUFFS.

[From Twelfth (1900) Census.]

Establishments manufacturing	57
Capital invested	$10,216,817
Wages	$5,688,969
Materials	6,011,456
Value of products	$15,769,132

New York State is the centre of the industry.

INTERESTING FACTS ABOUT THE EARTH.

Weight and Dimensions.

Equatorial diameter (miles)	7,925
Polar diameter (miles)	7,899
Circumference on Equator (miles)	24,899
Surface in square miles	196,900,143
Volume in cubic miles	259,400,000,000
Specific gravity	5.46
Weight in tons	6,000,000,000,000,000,000,000

Earth's Surface.

The area of the entire surface of the globe is estimated at nearly 200,000,000 square miles, of which a little more than 50,000,000 miles are land, and somewhat less than 150,000,000 are water.

Land Surface.	Square Miles Area.
Eastern Continent	31,634,880
Western Continent	15,606,066
Oceanica	4,828,365
Total	52,069,311

Water Surface.	Square Miles Area.
Pacific Ocean	72,000,000
Atlantic Ocean	35,000,000
Indian Ocean	28,000,000
Antarctic Ocean	8,500,000
Arctic Ocean	4,500,000
Total	148,000,000

Areas of Principal Islands.

Europe.	Square Miles Area.
Great Britain	89,000
Ireland	32,500
Sicily	11,300
Sardinia	9,300

Africa.	Sq. Miles Area.
Madagascar	228,500

America.	
Greenland	838,000
Cuba	45,900
Newfoundland	42,700
Iceland	40,500
Hayti	30,000
Vancouver	16,000
Chiloe	4,800
Jamaica	4,250

Asia.	
Hondo	86,800
Saghalin	47,000
Yezo	34,500
Ceylon	24,500
Kinshiu	15,000
Formosa	15,000
Hainan	14,000
Shikoku	7,000

Heights of the Principal Volcanoes.	Feet.
Aconcagua, Chili	23,869
Chimborazo, Ecuador	21,440
Arequipa, Peru	20,320
Cotopaxi, Ecuador	19,550
Antisana, Ecuador	19,137
Tolima, Colombia	18,020
Popocatepetl, Mexico	17,717
Orizaba, Mexico	17,374
Pichincha, Ecuador	15,924
Iztaccihuatl, Mexico	15,708
Fuero, Guatemala	13,800
Mauna Loa, Sandwich Islands	13,760
Aqua, Guatemala	13,758
Etna, Sicily	10,874
Egmont, New Zealand	8,840
Jorullo, Mexico	4,265
Vesuvius, Italy	3,948
Kilauea, Sandwich Islands	3,870

LARGEST COMBINATION OF CAPITAL IN THE WORLD.

The largest combination of capital in the world is the United States Steel Corporation, incorporated under the laws of New Jersey, June, 1901. Its chief organizer was J. Pierpont Morgan. Charles M. Schwab was elected its president. It was capitalized at $1,100,000,000, and absorbed the following companies of the value of capital attached to each:

Carnegie Steel Company	$160,000,000
Federal Steel Company	99,745,000
American Steel and Wire Company	90,000,000
National Tube Company	80,000,000
American Bridge Company	70,000,000
National Steel Company	59,000,000
American Sheet Steel Company	49,000,000
American Tin Plate Company	46,325,000
American Steel Hoop Company	33,000,000
Lake Superior Consolidated Iron Mines Company	30,000,000
Shelby Steel Tube Company	15,000,090

STATE FLOWERS.

In many States the choice of a "State Flower" has been submitted to a vote of the children in the Common Schools, with the result indicated below. In the case of Arkansas, Louisiana, Maine, Oklahoma Territory, Texas, and Vermont, the Legislature has enacted its choice of a "State Flower" into law.

Alabama	Golden Rod
Arkansas	Apple Blossom
California	California Poppy
Colorado	Purple Columbine
Delaware	Peach Blossom
Florida	Japonica
Idaho	Syringia
Illinois	Rose
Indiana	Cone
Iowa	Wild Rose
Louisiana	Magnolia
Maine	Pine Cone
Michigan	Apple Blossom
Minnesota	Moccasin
Mississippi	Magnolia
Montana	Bitter Root
Nebraska	Golden Rod
New Jersey, State tree	Sugar Maple
New York	Rose
New Mexico	Rose, Crimson Rambler
North Carolina	Chrysanthemum
North Dakota	Golden Rod
Oklahoma Territory	Mistletoe
Oregon	Oregon Grape
Rhode Island	Violet
Texas	Blue Bonnet
Utah	Sego Lily
Vermont	Red Clover
Washington	Rhododendron

SHRINKAGE OF CORN IN DRYING.

In 1898 the Iowa Agricultural Station built a crib on the platform of a pair of scales thirteen and one-half feet long by seven and one-half feet wide, and holding 7,000 bushels of corn. The corn was husked and stored in the crib October 19, 1898, and was weighed every week. From October 19 to January 19 the loss was nine per cent of the original weight, and from January 19 to April 19 five and four-sevenths per cent of the first weight. During the next three months the loss was three and one-seventh per cent of the original weight ,and during the last three months the loss was two and five-sevenths per cent; a loss during the year of 1,430 pounds, or a fraction more than twenty per cent. This means that a bushel of corn weighing eighty pounds, the usual weight given at that date of husking, will weigh sixty-four pounds at the end of the year; or if calculated to weigh seventy-five pounds at the time of storing, will weigh sixty pounds after having been stored one year. The weekly weighing showed that there was a gain at certain intervals due to the fact that the corn took up moisture during wet weather.

ELEMENTS OF PARIS GREEN.

Paris green, or copper aceto-arsenite, when chemically pure, contains the following amounts of the different elements indicated:

Arsenic	44.44	Per Cent.
Copper	24.99	"
Oxygen	25.25	"
Carbon	4.73	"
Hydrogen	0.59	"

STATISTICS OF THE UNITED STATES PATENT OFFICE.

[*Patent Office Reports.*]

Patents for inventions issued in last sixty-six years	667,173
Patents for designs issued " " "	34,018
Applications for patents filed " " "	1,157,373
Total receipts of office " " "	$38,123,651
Total expenditures " " "	$34,901,671
Net surplus	$5,221,679
Receipts for last year	$1,350,828
Expenditures	$1,260,019
Number of applications for patents	39,673
Number of applications for design patents	2,225
Number of applications for reissue patents	82
Number of applications for registration of trade-marks	2,097
Number of applications for registration of labels	943
Number of applications for prints	127
Number of caveats filed	1,731
Number of appeals on merits	907
Number of patents and designs granted	26,499
Number of trade-marks registered	1,721
Number of labels registered	737
Number of prints registered	93
Number of patents expired	21,196

NUMBER OF PATENTS ISSUED TO GREATEST INVENTORS.

Thomas A. Edison	742
Francis H. Richards	619
Elihu Thomson	444
Charles E. Scribner	374
Luther C. Crowell	293
Edward Weston	280
Rudolph M. Hunter	276
C. J. Van Depoele (deceased)	245
George Westinghouse	239
John W. Hyatt	209
Freeborn F. Raymond, 2d	182
Sydney H. Short	178
Rudolph Eickemeyer (deceased)	171
Milo G. Kellogg	159
Walter Scott	156
Arthur J. Moxham	150
Cyrus W. Saladee	148
Louis Goddu	146
Hiram S. Maxim	146
George D. Burton	144
Lewis H. Nash	142
Edwin Norton	141
Abbot Augustus Low	137
Philip Diehl	137
James C. Anderson	135
Edward J. Brooks	133
Elmer A. Sperry	132
Peter K. Dederick	128
Hosea W. Libbey	127
James F. McElroy	121
William N. Whitely	121
Horace Wyman	118
Frank Rhind	117
Louis K. Johnson	114
Warren H. Taylor	112
James M. Dodge	111
George H. Reynolds	110
Talbot C. Dexter	109
James H. Northrup	102

HOW MONEY GROWS AT COMPOUND INTEREST.

Put one dollar out on compound interest for one hundred years at any of the following rates per cent, and see what surprising totals are reached:

AMOUNT.	Years.	Per Cent.	Accumulation.	AMOUNT.	Years.	Per Cent.	Accumulation.
$1.00	100	1	$2.74.5	$1.00	100	7	$867.72.1
1.00	100	2	7,20.5	1.00	100	8	2,199.78.4
1.00	100	2½	11.81.4	1.00	100	9	5,529.04.4
1.00	100	3	19.21.8	1.00	100	10	13,780.66
1.00	100	3½	31.19.1	1.00	100	11	34,064.34.6
1.00	100	4	50.50.4	1.00	100	12	83,521.82.7
1.00	100	4½	81.58.9	1.00	100	15	1,174,302 40
1.00	100	5	131.50.1	1.00	100	18	15,424,106.40
1.00	100	6	339.30.5	1.00	100	24	2,198,720,200

CAPACITY OF A CIRCULAR SILO.

FOR WELL-MATURED CORN SILAGE, IN TONS.

DEPTH.	INSIDE DIAMETER IN FEET.										
	12	15	16	17	18	19	20	21	22	23	24
Feet.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
20	45	70	80	90	101	113	125	138	151	167	180
21	47	74	84	95	106	118	132	145	159	173	190
22	49	77	88	99	111	124	138	152	166	182	198
23	52	81	92	104	117	130	144	159	174	190	207
24	54	84	96	108	122	135	150	166	179	199	216
25	56	88	100	113	127	141	157	173	189	207	225
26	59	92	104	118	132	147	163	180	197	215	235
27	61	95	108	122	137	153	169	187	205	224	244
28	63	98	112	126	142	158	175	193	212	232	252
29	65	101	116	131	147	164	182	200	220	240	262
30	67	105	120	136	152	170	188	227	227	249	271

PERCENTAGE OF LIME IN VARIOUS SOILS.

KIND OF SOIL.		Lime Per cent.
1. Prairie soil from North Dakota		.85 to 3.90
2. Virgin soil from Walla Walla; fertile, sandy, from basaltic rock		1.34 to 2.10
3. Muck, from Union, Pier, Mich.		.97
4. Heavy prairie swamp, with clay subsoil, yields, large crops of hay, fair wheat, poor corn		1.39
5. Subsoil corresponding to No. 4		1.28
6. Drift soil, with clay subsoil, Oswego, N. Y.		.35 to 1.87
7. Alluvial bottom soil, Louisiana		.41 to 2.06
8. Barren, pine-hill land, Louisiana		.09
9. Sandy soil, Rio Grande, N. J.		.225 to .505
10. Soils from Kansas and Nebraska, prairie		.45 to .76
11. Sugar-cane soil, Demerara, cropped 15 years		.08
12. Sugar-cane soil, Jamaica		.99
13. Rhine alluvium, ZuiderDee, Holland, highly fertile	Surface	4.09
	15 in. deep	5.10
	30 in. deep	2.48
14. Fertile wheat soil, Mid Lothian, Scotland		1.23
15. Sterile soil, Upper Palatinate, Bavaria		.10
16. Ten sandy soils, from Alabama, Florida and Georgia		.045 to .141
17. Ten clay soils from Alabama, Georgia, South Carolina, Mississippi, Tennessee and Louisiana		.036 to 3.054
18. Average of 466 non-calcareous soils of humid region of the United States (South Carolina, North Carolina, Arkansas, Kentucky and Gulf States		.11
19. Average of 313 soils of arid region of the United States (California, Washington, Montana)		1.36
20. Alkali soils of California, Washington and Montana		.03 to 4.50
21. Black tschernosem, Poltava, Russia (wheat soil)		1.21
22. Volcanic soil, gray, Sumatra (tobacco soil)		.77
23. Granitic soil, Granville, N. C. (yellow tobacco soil)		.07
24. Limestone soil, Donegal, Pa.		.61
25. Limestone soil, Rocky Spring, Pa., surface		.41
Limestone soil, Rocky Spring, Pa., subsoil		.25

AMOUNT OF LIME IN VARIOUS FERTILIZERS.

SUBSTANCE.	Lime Compound.	Pounds of Lime.
Ashes (lime kiln)	Caustic lime and carbonate	970
Ashes, wood, leached	Carbonate and phosphate	560
Ashes, wood, unleached	Carbonate and phosphate	680
Bone ash	Phosphate	900
Bone meal	Phosphate	540
Cottonseed hull ashes	Carbonate and phosphate	190
Gas lime	Carbonate and sulfate	880
Kainit	Chlorid and sulfate	23
Kieserit	Chlorid and sulfate	56
Maris	Carbonate and phosphate	0–900
Land plaster, Cayuga	Sulfate and carbonate	800–850
Land plaster, Nova Scotia	Sulfate and carbonate	820
South Carolina rock, ground	Phosphate and carbonate	840
South Carolina rock, dissolved	Phosphate and sulphate (about)	420
Tannery ashes	Carbonate and phosphate	680
Tobacco stalks	Nitrate, malate, etc.	44
Tobacco stems	Nitrate, maiate, etc.	84
Thomas slag phosphate	Phosphate and oxid	970

ALCOHOLIC PERCENTAGE OF LIQUORS.

Liquor tests made under favorable conditions of purity and laboratory experience show the following average percentages of alcohol in each 100 parts tested:

Scotch whiskey	54 %	Burgundy	14 %
Rum	53 %	Champagne (still)	13¾%
Brandy	52¾%	Champagne (sparkling)	12½%
Irish whiskey	52½%	Gooseberry wine	11½%
Rye whiskey	52 %	Elderberry wine	8¾%
Corn whiskey	51½%	Dandelion wine	8 %
Gin	51 %	Ale	7 %
Madeira wine	22¼%	Beer	6¾%
Port wine	22 %	Cider	5. to 9 %
Currant wine	20½%	Porter	4 %
Sherry wine	19 %	Small beer	1 %
Claret wine	15 %		

WEIGHT OF ARTICLES AS COMPARED WITH WATER.

What is known as the specific gravity of an article is its weight when compared with that of an equal quantity in cubic inches or cubic feet of distilled water at a temperature of 60° Fahrenheit. Thus, a cubic foot of such water is found to weigh approximately 1,000 avoirdupois ounces; but in order to simplify comparisons with the weight of other articles, one-tenth of this weight of water, or 100 ounces, is taken for tabular purposes. Therefore, if you wish to ascertain the full and true weight of a cubic foot of any of the articles in the comparative table below, you multiply the figures opposite them by 10; *i. e.*, opposite cast iron you find 721, which, as compared with water at 100, shows it to be 721 times heavier than water; and, when multiplied by 10 = to 7,210, that a cubic foot of cast iron weighs 7,210 ounces. And so for all the other articles.

Water	100	Gunpowder	93
Alcohol	84	Honey	145
Ash wood	84	Ice	92
Bar iron	779	Indigo	77
Beech wood	85	Ivory	183
Beer	102	Lead	1,135
Brass	840	Mahogany	106
Butter	94	Maple	75
Cast iron	721	Marble	270
Cedar wood	61	Mercury	1,357
Chalk	279	Oak	117
Cherry wood	72	Opium	134
Cider	102	Pear wood	66
Clay	120	Platina	2,150
Coal	130	Poplar wood	38
Copper	895	Porter	104
Cork	24	Sea water	103
Cow's milk	103	Silver	1,047
Dead Sea water	124	Steel	783
Diamond	353	Sulphur	203
Ebony	133	Tin	729
Fir wood	55	Turpentine	99
Glass	289	Urine	101
Goat's milk	104	Walnut wood	67
Gold	1,926	Wine	100
Granite	278	Woman's milk	102

LINES OF SEA-LEVEL VISION.

On account of the curvature of the earth sight of objects at sea is soon cut off. Thus, a vessel 50 feet high, sailing away from shore is last seen at a distance of 9.35 miles. The following table shows the distances at which objects of different heights can be last seen at sea, or their sea-level visibility:

Height of Object (feet).	Miles Distant.	Height of Object (feet).	Miles Distant.	Height of Object (feet).	Miles Distant.
1	1.31	30	7.25	90	12.25
5	2.96	35	7.83	100	13.23
6	3.24	40	8.37	150	16.22
7	3.49	45	8.87	200	18.72
8	3.73	50	9.35	300	22.91
9	3.96	60	10.25	500	29.58
10	4.18	70	11.07	1,000	33.41
20	5.92	80	11.83	5280 (mile)	96.10
25	6.61				

BIN MEASUREMENTS.

Corn in Crib.—Multiply the foot length of the crib by its width and the product by its height. Divide the final product by two and you have the number of bushels of shelled corn the crib will contain, because every two cubic feet of corn in the ear will give a bushel of shelled corn.

Potatoes, Apples, etc.—Multiply the foot length, breadth and height of the bin together, and then multiply the product by eight and divide by ten; the result will be the number of bushels in the bin.

Hay.—Multiply the foot height of the space occupied by the hay in a mow by its width, and the product by its length. Divide the final product by 512, and you get the tons of hay in the space.

STRENGTH OF FRESHLY-FORMED ICE.

One and one-half inches supports a man.
Four inches supports horse and rider.
Five inches supports an eighty-pounder cannon.
Ten inches supports an army.
Eighteen inches supports a train of cars.

PERPETUAL SNOW LINES.

The height above sea-level of the line of perpetual snow varies with the latitude, and is as follows:

Latitude.	Feet.	Latitude.	Feet.	Latitude.	Feet.
0	15,260	30	11,484	60	3,118
10	14,764	40	9,000	70	1,278
20	13,478	50	6,334		

FUEL VALUE OF DIFFERENT WOODS.

Taking shellbark hickory as of the highest fuel value, and rating it as 100, the other woods compare with it in fuel value as follows:

Shellbark hickory	100	Yellow oak	60
Pignut hickory	95	Elm	58
White oak	84	Red oak	56
Ash	77	Red cedar	56
Dogwood	75	Wild cherry	55
Scrub oak	73	Yellow pine	54
White hazel	72	Chestnut	52
Apple	70	Poplar (yellow)	51
Beech	69	Butternut	43
Birch (black)	65	Birch (white)	43
Maple	65	White pine	30
Walnut (black)	62		

MELTING POINT OF SUBSTANCES.

Water boils at	212° F.	Zinc melts at	740° F.
Wrought iron melts at	3,980° F.	Lead melts at	594° F.
Cast iron melts at	3,479° F.	Tin melts at	421° F.
Platinum melts at	3,080° F.	Arsenic melts at	365° F.
Gold melts at	2,590° F.	Sulphur melts at	226° F.
Copper melts at	2,548° F.	Beeswax melts at	151° F.
Steel melts at	2,500° F.	Gutta percha melts at	145° F.
Glass melts at	2,377° F.	Tallow melts at	97° F.
Brass melts at	1,900° F.	Lard melts at	95° F.
Silver melts at	1,250° F.	Pitch melts at	91° F.
Antimony melts at	951° F.	Ice melts at	33° F.

SECONDARY COLORS—HOW OBTAINED.

Brown is mixed red and black.
Rose is mixed lake and white.
Drab is mixed umber and white.
Chestnut is mixed white and brown.
Chocolate is mixed yellow and brown.
Purple is mixed red and light blue.
Flesh tint is mixed carmine and straw.
Pearl is mixed blue and lead tint.
Pink is mixed carmine and white.
Light gray is mixed lamp-black and indigo.
Lead color is mixed lamp-black and white.
Green (bright) is mixed paris green and white.
Buff is mixed yellow ochre and white.
French white is mixed white with purple tint.
Green (dark) is mixed black and chrome green.
Green (pea) is mixed white and chrome green.
Green (brilliant) is mixed white and emerald green.
Orange is mixed chrome yellow and vermilion.
Straw color is mixed chrome yellow and white lead.
Cream is mixed white with yellow and red tint.
Roses (ashes of) is mixed white with black and purple tint.
Gray (French) is mixed white with black and purple tint.
Olive is mixed chrome yellow with blue, black and red.

HOLDING CAPACITY OF CISTERNS.

The barrel is here taken to contain 31½ gallons, or 63 gallons to the hogshead, if hogshead denomination is preferred. For total capacity multiply the barrel capacity for given diameter at one foot of depth by the total feet in depth.

Circular Cistern.		Square Cistern.	
Feet in Diameter.	Capacity in Barrels for Every Foot in Depth.	Feet Square.	Capacity in Barrels for Every Foot in Depth.
5	4½	5 by 5	6
6	6¾	6 by 6	8½
7	9	7 by 7	11½
8	12	8 by 8	15¼
9	15	9 by 9	19½
10	18½	10 by 10	23¾

HOW LONG ANIMALS LIVE.

The record of animal ages here given must not be taken as an average, but as a possible life attainment, the constitution being good and all other conditions most favorable.

Animal.	Age.	Animal.	Age.
Camel	100	Lion	70
Canary bird	10	Man	100
Cat	15	Parrot	100
Cow	20	Peafowl	20
Crow	50	Pigeon	20
Dog	14	Rabbit	7
Elephant	100	Raven	50
Fox	15	Sheep	10
Goose	50	Swan	100
Hen	10	Swine	20
Horse	30	Wolf	20

INCUBATION OF RABIES IN THE DOG.

Dr. Pench, a celebrated French physician, has compiled a table of 144 cases of rabies in the dog in which the following number of days were found to exist between the date of inoculation and first symptoms of madness:

No. of Days of Incubation.	No. of Cases.	Per Cent.	No. of Days of Incubation.	No. of Cases.	Per Cent.
5 to 10	3	2.08	55 to 60	2	1.39
10 to 15	8	5.55	60 to 65	7	4.86
15 to 20	13	9.03	65 to 70	1	.69
20 to 25	25	17.36	70 to 75	5	3.47
25 to 30	13	9.03	80 to 90	7	4.86
30 to 35	25	17.36	100 to 120	4	2.78
35 to 40	6	4.17	365	1	.69
40 to 45	11	7.64			
45 to 50	9	6.25	Total	144	....
50 to 55	4	2.78			

A TRIP AROUND THE WORLD.

Principal Stopping Places.	Miles.
New York to San Francisco	3,250
San Francisco to Yokohama	4,098
Yokohama to Hong Kong	1,620
Hong Kong to Singapore	1,150
Singapore to Calcutta	1,200
Calcutta to Bombay	1,400
Bombay to Aden	1,664
Aden to Suez	1,308
Suez to Alexandria	250
Alexandria to Marseilles	1,300
Marseilles to Paris	536
Paris to London	316
London to Liverpool	205
Liverpool to New York	3,540

BOX MEASURES.

A box 24 inches long by 16 inches wide, and 23 inches deep, will contain a barrel (3 bushels).

A box 24 inches long by 16 inches wide, and 14 inches deep, will contain half a barrel.

A box 16 inches square and 8 2-5 inches deep, will contain one bushel.

A box 16 inches by 8 2-5 inches wide, and 8 inches deep, will contain half a bushel.

A box 8 inches by 8 2-5 inches square, and 8 inches deep, will contain one peck.

A box 8 inches by 8 inches square, and 4 1-5 inches Peep, will contain one gallon.

A box 7 inches by 4 inches square, and 4 4-5 inches deep, will contain half a gallon.

A box 4 inches by 4 inches square, and 4 1-5 inches deep, will contain one quart.

VELOCITIES.

	Per Hour.	Per Second.
Electricity moves	....	290,000 miles.
Light moves	....	186,330 "
Rifle ball moves	1,000 miles.	1,466 feet.
Sound moves	743 "	1,142 "
Hurricane moves	80 "	117 "
A storm moves	40 "	58 "
A horse runs	20 "	29 "
Steamship (ocean) runs	25 "	37 "
Steamboat runs	18 "	26 "
Steam-car (fast) runs	50 "	74 "
Sailing vessel runs	10 "	14 "
Slow river flows	3 "	4 "
Rapid river flows	7 "	10 "
Moderate wind blows	7 "	10 "
Horse trots (average)	7 "	10 "
Man walks (average)	3 "	4 "
Automobile (racer) travels	50 "	74 "

RECORD TIMES.

Running (man), one mile in	4m. 12¾s.
Walking (man), one mile in	6m. 27 2-5s.
Trotting (track horse), one mile in	2m.
Pacing (track horse), one mile in	1m. 59¼s.
Trotter to wagon, one mile in	2m. 05½s.
Bicycle, one mile in	1m. 22 2-5s.
Skating, one mile in	1m 05¾s.
Rowing, one mile in	5m. 02¾s.
Swimming, one mile in	12m. 42½s.

MILE LENGTHS IN DIFFERENT COUNTRIES.

American mile	1,760 Yards.
English mile	1,760 "
Italian mile	1,766 "
Tuscan mile	1,808 "
Turkish mile	1,826 "
Scotch mile	1,984 "
Roman mile	2,025 "
Arabic mile	2,140 "
Irish mile	2,240 "
Dutch mile	6,480 "
Flemish mile	6,869 "
Swedish mile	7,341 "
German mile	8,106 "
Vienna mile	8,269 "
Swiss mile	9,153 "

MEASUREMENTS OF AN ACRE.

	Square Rods.	Square Yards.	Square Feet.
One acre is	4 by 40	5 by 968	55 by 792
One acre is	5 by 32	10 by 484	110 by 396
One acre is	8 by 20	20 by 242	120 by 363
One acre is	10 by 16	40 by 121	220 by 198

AGES AND PERIODS IMPORTANT IN BREEDING.

[*Year Book of Agricultural Department.*]

Name of Animal.	Age to Begin Breeding.	Periods of Gestation and Incubation.	Young at One Birth; Eggs for Sitting.	Duration of Œstrum.	Return for Breeding After Parturition.	Return to ascertain Pregnancy.	Age of Weaning.	Females to Males.	Early Age for Market.	Usefulness for Breeding.
	Years.	*Days.*[1]	*Number.*	*Days.*	*Days.*	*Days.*	*Months.*	*Number.*	*Months.*	*Years.*
Horse	4	317 342 419	1	5 to 7	7 to 10	14 to 21	5 to 8	20 to 30	12	10 to 12
Cow	3	226 280 326	1	2 to 4	21 to 28	21 to 28	4 to 6	20 to 40	2 to 10	10 to 12
Hog	1	104 120 127	8 to 12	2 to 4	35 to 42	20 to 21	1½ to 2	6 to 10	10	6
Sheep	2	143 151 160	1 to 2	1 to 2	120 to 180	17 to 20	3½ to 4½	40 to 50	4	6
Goat	2	148 155 162	1 to 3	(2)	(2)	(3)	(2)	20 to 40	4	6
Rabbit	½ to 1	30	3 to 8					30		5 to 8
Hen[3]	1	21	9 to 15					10 to 12	3	3 to 5
Turkey	1	28	9 to 15					6 to 8	8	10
Guinea	1	25	10 to 16					15 to 25		10
Duck	1	28 35	11 to 15					5	3	10
Goose	1	30 35	7 to 10					5	3	10
Pigeon[4]	½ to 1	14 18	2					1	1	
Dog	2	55 63 70	2 to 12						3	8
Cat	1	48 55 60	3 to 6					5 to 6	3	6

---

[1] Varying figures show the shortest and longest periods and in most cases the average.
[2] Probably about the same as with sheep.
[3] The temperature for hatching eggs is 104° F.
[4] Pigeons hatch three or four broods in a season.

PERIODS OF INCUBATION, OR LATENCY, OF DISEASE.

Anthrax	½ to 1 day
Canine distemper	7 to 21 days
Cattle plague	5 to 8 days
Contagious foot rot	3 to 6 days
Foot and mouth disease	2 to 4 days
Glanders and farcy	7 to 42 days
Pleuro-pneumonia	21 to 100 days or more
Rabies	10 days to months
Tuberculosis	14 to 60 days or more
Variola, cow	6 to 9 days
Variola, horse	6 to 8 days
Variola, sheep	8 to 12 days

TEMPERATURE, PULSE, AND RESPIRATION OF DOMESTIC ANIMALS.

The artery usually selected for taking the pulse of the horse is the submaxillary, where it winds around the lower jawbone. On the inner side the artery may be readily felt and pressed against the bone, the number of beats in a minute, the regularity, and the strength are to be noticed as indicating the condition and action of the heart. In the cow the same artery should be felt, the precise location being at the lower edge of the flat muscle on the side of the cheek. When the cow is lying down the metacarpal artery on the back part of the fore fetlock may be felt conveniently.

For both horse and cow the temperature is taken by inserting a clinical thermometer in the rectum. Care should be taken that the mercury is below the normal temperature of the animal, and the thermometer should remain in the gut for three or four minutes.

The following table gives the normal temperatures, etc., of the principal domestic animals. The frequency of the pulse and of respiration even in repose depends somewhat upon the temperature of the air, stable, or house, and upon whether the observation is made before or after feeding.

NORMAL TEMPERATURE, PULSE, AND RESPIRATION.

Name of Animal.	Internal Temperature.	Number of Pulsations.	Number of Respirations.
	° *F.*	*Per minute.*	*Per minute.*
Horse	100.2	34 to 40	8 to 12
Cow	102.2	40 to 60	12 to 16
Sheep and goat	103.1	60 to 80	20 to 30
Hog	102.3	60 to 80	20 to 30
Dog	101.3	55 to 75	20 to 30
Cat	100.9	70 to 90	15 to 25

SCHOOL AGES IN ALL THE STATES.

Twelfth (1900) *Census Report.*

Most of the States and Territories provide by law for an annual school census, and nearly all by direct laws or compiled statutes for the school ages of pupils. In the following table both years are inclusive.

States and Territories.	School Ages.	States and Territories.	School Ages.
Alabama	7–20	Missouri	6–19
Alaska	None.	Montana	6–20
Arizona	6–17	Nebraska	5–20
Arkansas	6–20	Nevada	6–17
California	5–16	New Hampshire	5–15
Colorado	6–20	New Jersey	5–17
Connecticut	4–15	New Mexico	5–20
Delaware	6–20	New York	4–15
District of Columbia	6–17	North Carolina	6–20
Florida	6–20	North Dakota	6–19
Georgia	6–17	Ohio	6–20
Hawaii	6–15	Oklahoma	6–20
Idaho	5–20	Oregon	4–19
Illinois	6–20	Pennsylvania	6–15
Indiana	6–20	Rhode Island	5–15
Indian Territory	None.	South Carolina	6–20
Iowa	5–20	South Dakota	6–20
Kansas	5–20	Tennessee	6–20
Kentucky	6–19	Texas	8–16
Louisiana	6–17	Utah	6–17
Maine	4–20	Vermont	5–20
Maryland	6–20	Virginia	5–20
Massachusetts	5–14	Washington	5–20
Michigan	5–19	West Virginia	6–20
Minnesota	5–20	Wisconsin	4–19
Mississippi	5–20	Wyoming	6–20

FEET FALL PER MILE.

A fall of 1 foot in 10 feet is 528 feet in a mile.
A fall of 1 foot in 15 feet is 352 feet in a mile.
A fall of 1 foot in 20 feet is 264 feet in a mile.
A fall of 1 foot in 25 feet is 211 feet in a mile.
A fall of 1 foot in 30 feet is 176 feet in a mile.
A fall of 1 foot in 35 feet is 151 feet in a mile.
A fall of 1 foot in 40 feet is 132 feet in a mile.
A fall of 1 foot in 50 feet is 106 feet in a mile.
A fall of 1 foot in 100 feet is 53 feet in a mile.
A fall of 1 foot in 125 feet is 42 feet in a mile.

VALUE OF SILVER AS COMPARED WITH GOLD.

The contention of bimetallists is that silver should be coined into money, and that it can be commercially maintained as valid currency, at the ratio of 16 of silver to 1 of gold. The following table shows the actual commercial ratio of silver and gold up to and inclusive of the year 1900. By consulting the table, as an instance, you will find that the ratio of silver and gold in the year 1900 was as 33.33 (silver) is to 1 (gold).

1687	14.94	1878	17.94
1700	14.81	1879	18.40
1750	14.55	1880	18.05
1800	15.68	1881	18.16
1825	15.17	1882	18.19
1850	15.70	1883	18.64
1860	15.29	1884	18.57
1861	15.50	1885	19.41
1862	15.35	1886	20.78
1863	15.37	1887	21.13
1864	15.37	1888	21.99
1865	15.44	1889	22.09
1866	15.43	1890	19.76
1867	15.57	1891	20.92
1868	15.59	1892	23.72
1869	15.60	1893	26.49
1870	15.57	1894	32.56
1871	15.57	1895	31.60
1872	15.63	1896	30.66
1873	15.92	1897	34.28
1874	16.17	1898	35.03
1875	16.59	1899	34.36
1876	17.88	1900	33.33
1877	17.22	1903	38.10

COST OF A PACIFIC CABLE.

In its report to the Fifty-sixth Congress, the House Committee on Interstate and Foreign Commerce gave the following estimate of the cost of a Pacific cable between San Francisco and the Philippines:

9,285 knots of cable, including 10 per cent of slack	$11,583,030
500 knots of spare cable	623,750
2 cable ships ($300,000 each)	600,000
2 sets cable gear	250,000
6 stations	180,000
Duplex instruments, battery, etc.	60,000
Spare instruments	30,000
Travelling expenses, freight, etc.	100,000
Contingent fund	250,000
Total	$13,676,780
Add cost of a duplicate cable	11,500,000

SLAUGHTERING AND MEAT PACKING INDUSTRY.

[*From Census Reports.*]

	1900.	1890.	Per Cent of Increase.
Total cost	$683,583,577	$480,962,211	42.1
Beeves slaughtered:			
Number	5,530,911	5,422,044	2.0
Cost	$247,365,812	$193,348,810	27.9
Sheep slaughtered:			
Number	9,190,490	6,178,449	48.8
Cost	$37,137,542	$24,358,179	52.5
Hogs slaughtered:			
Number	30,654,333	22,349,451	37.2
Cost	$278,736,961	$207,228,609	34.5
All other animals slaughtered:			
Cost	$7,916,399	$5,246,661	50.9
Dressed meat:			
Cost	$54,715,496	$25,674,343	113.1
Fuel	$2,747,606	$1,569,396	75.1
Rent of power and heat	$30,946	$25,240	22.6
All other materials, including mill supplies and freight	$54,932,815	$23,510,973	133.6

STRIKES AND LOCKOUTS IN THE UNITED STATES, 1881-1900.

[From Report of United States Commissioner of Labor.]

Prior to 1881 no attempt was made by the Government to collect data relative to labor controversies. Since then, as the following tables show, the losses to employers and employees under strike and lockout conflicts have amounted to the enormous total of $468,968,581, and 6.000,000 persons have been thrown out of employment for an average of 23.8 days.

STRIKES.

YEAR.	Number of Strikes.	Establishments Involved.	Employees Thrown out of Employment.	Average Duration (Days).	Wage Loss of Employees.	Assistance to Employees by Labor Organizations.	Loss of Employers.	Per Cent of Establishments in which Strikes—		
								Succeeded.	Succeeded Partly.	Failed.
1881....	471	2,928	129,521	12.8	$3.372,578	$287.999	$1,919,483	61.37	7.00	31.63
1882....	454	2,105	154,671	21.9	9,864,228	734,339	4,269,094	53.59	8.17	38.24
1883....	478	2,759	149,763	20.6	6,274,480	461,233	4,696,027	58.17	16.09	25.74
1884....	443	2,367	147,054	30.5	7,666,717	407,871	3,393,073	51.50	3.89	44.61
1885....	645	2,284	242,705	30.1	10,663,248	465,827	4,388,893	52.80	9.50	37.70
1886....	1,432	10,053	508,044	23.4	14,992,453	1,122,130	12,357,808	34.50	18.85	46.65
1887....	1,436	6,589	379,676	20.9	16,560,534	1,121,554	6,698,495	45.64	7.19	47.17
1888....	906	3,506	147,704	20.3	6,377.749	1,752,668	6,509,017	52.22	5.48	42.30
1889....	1,075	3,786	249,559	26.2	10,409,686	592,017	2,936,752	46.49	18.91	34.60
1890....	1,833	9,424	351,944	24.2	13,875,338	910,285	5,135,404	52.65	10.01	37.34
1891....	1,717	8,116	298,939	34.9	14,801,505	1,132,557	6,176,688	37.88	8.29	53.83
1892....	1,298	5,540	206,671	23.4	10,772,622	833,874	5,145,691	39.31	8.70	51.99
1893....	1,305	4,555	265,914	20.6	9,938 048	563,183	3,406,195	50.86	10.32	38.82
1894....	1,349	8,196	660,425	32.4	37,145,532	931,052	18,982,129	38.09	13.50	48.41
1895....	1,215	6,973	392,403	20.5	13,044,830	559,165	5,072,282	55.24	9.94	34.82
1896....	1,026	5,462	241,170	22.0	11,098,207	462,165	5,304,235	59.19	7.47	33.34
1897....	1,078	8,492	408,391	27.4	17,468,904	721,164	4,868,687	57.31	28.12	14.57
1898...	1,056	3,809	249,002	22.5	10,037,284	585,228	4,596,462	64.19	6.38	29.43
1899....	1,797	11,317	417,072	15.2	15,157,965	1,096,030	7,443,407	73.24	14.25	12.51
1900....	1,779	9,248	505,066	23.1	18,341,570	1,434,452	9,431,299	46.43	20.62	32.95
Total..	22,793	117,509	6,105,694	23.8	$257,836,478	$16,174,793	$122,731,121	50.77	13.04	36.19

LOCKOUTS.

YEAR.	Number of Lockouts.	Establishments Involved.	Employees Thrown out of Employment.	Average Duration (Days).	Wage Loss of Employees.	Assistance to Employees by Labor Organizations.	Loss of Employers.	Per Cent of Establishments in which Lockouts—		
								Succeeded.	Succeeded Partly.	Failed.
1881....	5	9	655	32.2	$18,519	$3,150	$6,960	88.89	11.11	....
1882....	22	42	4,131	105.0	466,345	47.668	112,382	64.29	....	35.71
1883....	28	117	20,512	57.5	1,069,212	102,253	297,097	56.41	....	43.59
1884....	42	354	18,121	41.4	1,421,410	314,027	640,847	27.97	.28	71.75
1885....	50	183	15,424	27.1	901,173	89,488	455,477	38.25	3.28	58.47
1886....	140	1,509	101,980	39.1	4,281,058	549,452	1,949,498	21.18	13.11	65.71
1887....	67	1,281	59,630	49.8	4,233,700	155,846	2,819,736	34.19	1.25	64.56
1888....	40	180	15,176	74.9	1,100,057	85,931	1,217,199	74.44	3.89	21.67
1889....	36	132	10,731	57.5	1,379,722	115,389	307,125	40.91	25.76	33.33
1890....	64	324	21,555	73.9	957,966	77,210	486,258	65.74	5.56	28.70
1891....	69	546	31,014	37.8	883,709	50,195	616,888	63.92	14.29	21.79
1892....	61	716	32,014	72.0	2,856,013	537.684	1,695,080	69.13	25.28	5.59
1893....	70	305	21,842	34.7	6,659,401	364,268	1,034,420	41.90	18.31	39.79
1894....	55	875	29,619	39.7	2,022,769	160,244	982,584	11.31	2.40	86.29
1895....	40	370	14,785	31.6	791,703	67,701	584,155	13.24	.27	86.49
1896....	40	51	7,688	65.1	690,945	61,355	357,535	80.39	1.96	17.65
1897....	32	171	7,763	38.6	583,606	47,326	298,044	60.82	3.51	35.67
1898....	42	164	14,217	48.8	880,461	47,098	239,403	63.41	.61	35.98
1899....	41	323	14,817	37.5	1 485,174	126 957	379,365	18.01	.62	81.37
1900....	60	2,281	62,653	265.1	16,136,802	448,219	5,447,930	94.30	.31	5.39
Total..	1,005	9,933	504,307	97.1	$48,819,745	$3,451,461	$19,927,983	50.79	6.28	42.93

Note.—The number and cost of strikes and lockouts in the United States from 1900 to date, according to estimates, show higher averages than the above, the principal strikes being those of the Amalgamated Iron Workers, 1901; Anthracite Coal Miners, 1902; Building Trades, 1902-1904; Textile Workers, 1903, 1904; Cripple Creek miners, 1903, 1904; Butchers, 1904 Teamsters, 1905.

MILLING INDUSTRY OF THE UNITED STATES.

From Twelfth (1900) *Census.*

	1900
Number of establishments	25,258
Capital	$218,714,104
Salaried officials	5,790
Salaries paid	$5,404,750
Wage-earners	37,073
Wages paid	$17,703,418
Miscellaneous expenses	10,325,588
Cost of materials used	475,826,345
Value of products	560,719,063

SIMPLE INTEREST TABLE.

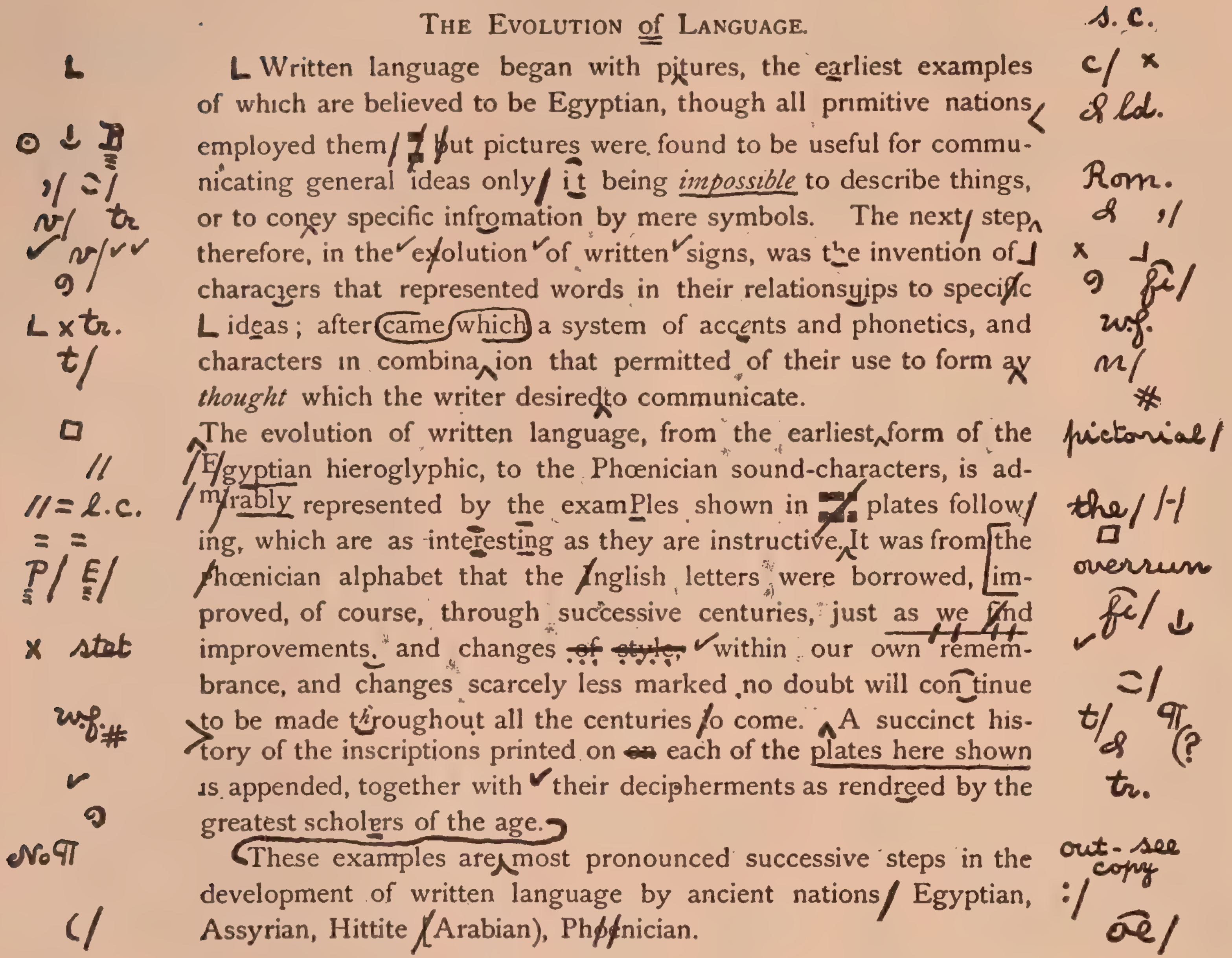
This table shows the interest on one dollar, at the different rates, from one month to twelve months; that is, the interest on four months is that on three and one month added together; so that on seven months, is that on six and one month added together. The same rule gives the interest on $100 from one day to one year.

TIME.	4 PER CENT.			5 PER CENT.			6 PER CENT.			7 PER CENT.			8 PER CENT.		
	Dollars.	Cents.	Mills.	Dollars.	Cents.	Mills.	Dollars.	Cents.	Mills.	Dollars.	Cents.	Mills.	Dollars.	Cents.	Mills.
One dollar, 1 month	....	....	3	....	....	4	....	....	5	....	....	5	....	....	6
One dollar, 2 months	....	....	7	....	....	8	....	1	....	....	1	1	....	1	3
One dollar, 3 months	....	1	1	....	1	3	....	1	5	....	1	7	....	2	....
One dollar, 6 months	....	2	....	....	2	5	....	3	....	....	3	5	....	4	....
One dollar, 12 months	....	4	....	....	5	....	....	6	....	....	7	....	....	8	....
One hundred dollars, 1 day	....	1	1	....	1	3	....	1	6	....	1	9	....	2	2
One hundred dollars, 2 days	....	2	2	....	2	7	....	3	2	....	3	8	....	4	4
One hundred dollars, 3 days	....	3	4	....	4	1	....	5	....	....	5	8	....	6	7
One hundred dollars, 4 days	....	4	5	....	5	3	....	6	6	....	7	7	....	8	9
One hundred dollars, 5 days	....	5	6	....	6	9	....	8	2	....	9	7	....	11	1
One hundred dollars, 6 days	....	6	7	....	8	3	....	10	....	....	11	6	....	13	3
One hundred dollars, 1 month	....	33	4	....	41	6	....	50	....	....	58	3	....	66	7
One hundred dollars, 2 months	....	66	7	....	83	2	1	....	....	1	16	6	1	33	3
One hundred dollars, 3 months	1	....	....	1	25	....	1	50	....	1	75	....	2	....	....
One hundred dollars, 6 months	2	....	....	2	50	....	3	....	....	3	50	....	4	....	....
One hundred dollars, 12 months	4	....	....	5	....	....	6	....	....	7	....	....	8	....	....

RECORD OF ARCTIC EXPLORATION.

COMMANDER.	DATE.	LATITUDE REACHED.	LONGITUDE.	LOCALITY.
Duke of Abruzzi, Italian	April 24, 1900	86° 33′	65° E.	North of Franz Josef Land, by Captain Cagni.
Nansen, Norwegian	April 7, 1895	86° 14′	90° E.	Northeast of Franz Josef Land, by Nansen and Johansen.
Sverdrup, Norwegian	November 15, 1895	85° 57′	60° E.	North of Franz Josef Land, in the Fram.
Peary, American	April, 1902	84° 17	70° W.	Frozen ocean, north of Grinnell Land.
Peary	May, 1900	83° 50′	35° W.	Frozen ocean, north of Greenland's northernmost island fringe.
A. W. Greely, American	May 13, 1882	83° 21′	41° W.	New land, north of Greenland, by Lockwood and Brainard
G. S. Nares, British	May 12, 1876	83° 20′	65° W.	Frozen sea, north of Grinnell Land, by A. H. Markham.
G. S. Nares, British	September 25, 1875	82° 48′	65° W.	Grinnell Land, by Aldrich.
W. E. Parry, British	July 23, 1827	82° 45′	20° E.	Spitzbergen Sea.
C. F. Hall, American	August 30, 1870	82° 11′	61° W.	Frozen Sea.
C. F. Hall, American	June 30, 1871	82° 07′	59° W.	Greenland, by Sergeant Meyer.
Weyprecht and Payer, Austrian	April 12, 1874	82° 05′	60° E.	Franz Joseph Land (by Payer, highest land).
T. Jackson, British	1895-96	82° 00′	60° E.	Franz Joseph Land.
R. E. Peary, American	July 4, 1892	81° 37′	35° W.	N. E. Greenland, Independence Bay, by Peary and Astrup
William Scoresby, British	May 24, 1806	81° 30′	19° E.	Spitzbergen Sea.
J. C. Phipps, Dutch	July 27, 1773	80° 48′	20° E.	Spitzbergen Sea.
Henry Hudson, Anglo-Dutch	July 13, 1607	80° 23′	10° E.	Spitzbergen Sea.
E. K. Kane	June 24, 1854	80° 10′	67° W.	Cape Constitution, Greenland, by Morton.

Specimen Page of Corrected Proof.



THE EVOLUTION of LANGUAGE.

Written language began with pitures, the earliest examples of which are believed to be Egyptian, though all primitive nations employed them but pictures were found to be useful for communicating general ideas only i t being *impossible* to describe things, or to coney specific infromation by mere symbols. The next step therefore, in the evolution of written signs, was the invention of characters that represented words in their relationsyips to specific ideas; after came which a system of accents and phonetics, and characters in combina ion that permitted of their use to form a *thought* which the writer desiredto communicate.

The evolution of written language, from the earliest form of the Egyptian hieroglyphic, to the Phœnician sound-characters, is admirably represented by the examPles shown in plates following, which are as interesting as they are instructive It was from the phœnician alphabet that the english letters were borrowed, improved, of course, through successive centuries, just as we find improvements and changes ~~of style,~~ within our own remembrance, and changes scarcely less marked no doubt will continue to be made throughout all the centuries to come. A succinct history of the inscriptions printed on ~~on~~ each of the plates here shown is appended, together with their decipherments as rendreed by the greatest scholers of the age.

These examples are most pronounced successive steps in the development of written language by ancient nations Egyptian, Assyrian, Hittite (Arabian), Phœnician.

Characters Used in Proof-reading.

L	Bring word to the line thus indicated.
#	Increase the space between lines or words.
^	Add the letter marked on the margin.
×	An imperfect letter.
δ ld.	Take out a lead.
⊙	Insert a period.
⊥	Indicates a type set on the wrong end.
□	Beginning of a new sentence (after a period).
B	Use a capital B.
✓	Equalize the space between words.
⊂	Less space, or no space.
—	Change according to the mark in the margin, either from Roman to *Italics*, or from *Italics* to Roman.
tr.	Transpose words or letters.
δ	Take out a word, letter, or punctuation mark.
✓✓	Attention called to bad spacing.
9	Turn a reversed letter.
w.f.	(wrong font). Indicates a wrong style or size letter.
//	Straighten the line.
l.c.	Substitute lower case (small letters).
=	Indicates that letter or word is out of line.
≡	Placed under a letter shows that it is to be a capital.
□ or #	Indent.
[	Overrun the line.
¶	Make a new paragraph.
out-see copy	See copy for words omitted.
(?	Query: Is this right?
⊂⊃	Transpose words.
stet	Restore words or letters wrongly marked out.
s.c.	Use small capitals.
L or ⅃	Carry a word or letter farther to the left or right.

Inventions and Discoveries.

[Patent Office and Official Sources.]

Acetylene gas—Davy	1836
Air-brakes—Westinghouse	1869
Aluminum, process of manufacture—Cowles	1885
Aniline dyes—Perkins	1856
Armor plate, annealing of	1888
Armstrong gun	1855
Artesian well, first bored—France	1841
Artificial legs	1846
Automobile or steam coach—Trenthick	1801
Automobile, the Davenport	1835

Babbitt metal for bearings	1839
Bacteriology—Pasteur	1865
Balloon ascension—France	1783
Barbed wire fence	1861
Battery for electrical purposes—Volta	1800
Battery gun	1861
Bayonets—Bayonne, France	1647
Bessemer steel-making process	1855
Bicycle—Draisine	1816
Billiards—France	1471
Blast furnace	1842
Blow-pipe—Hare	1801
Bombs—Holland	1495
Bookkeeping, double entry—Italy	1500
Breech-loading musket	1811
Buckles	1680
Bullets, iron	1550
Button-hole machine—Reece	1881

Cable cars—Hallidie	1876
Cable, first Atlantic	1858
Cable, first submarine, across Hoogley River	1839
Cables, first long submarine—English Channel	1850
Calico printing, Dutch loom	1760
Camera, "Kodak"	1888
Car coupler, automatic	1873
Cash carrier, store	1875
Chloroform as an anesthetic—Simpson	1847
Circular saw—England	1790
Clocks, water—Rome	B. C. 158
Clocks with dials	913
Clocks, brass—United States	1820
Cloth, woolen—England	1190
Coal—England	1234
Coal oil discovered in United States	1859
Concrete pavement	1863
Corn sheller, patent	1815
Cotton gin—Whitney—United States	1792
Cyanide process for extracting gold	1887

Daguerreotype—Daguerre	1829
Daniell's zinc-copper battery	1836
Dental plates, rubber	1864
Diamond rock drill—Hermann	1854
Diving bell	1509
Drummond light	1826
Dynamite gun	1889
Dynamite invented—Noble	1866
Dynamo electric machine—Siemans	1866

Earth closets	1860
Electric lamp—Foucalt	1853
Electric light—Edison	1879
Electric light—England	1813
Electric light, incandescent	1840
Electric locomotive	1851
Electric motor—Henry	1831
Electric pen—Edison	1876
Electric railway, first, built by Thomas Davenport, Vt	1835
Electric road, first modern, built by G. F. Greene, Kalamazoo, Mich	1875
Electrical machine—Von Guericke	1647
Electro-magnetism—Holland—Oersted	1818
Electroplating—Bessemer	1834
Electroplating—Brugnatelli	1805
Electrotyping—England	1837
Elevator, passenger—Otis	1861
Envelope for letters	1839
Ether as an anesthetic—Morton	1846

Fire engines	1518
Flint gun-locks	1630
Forks—Italy	1550

Galvanic battery, two-fluid	1829
Galvanism—Galvani	1791
Gas engine—Otto	1877
Gas, illuminating	1804
Gas, illuminating, from water	1842

Gas meter—Malam	1820
Gatling gun	1862
Gimlet, screw-pointed	1846
Glass—England	633
Gold discovered in California	1848
Gold pens	1835
Grain binder—Locke	1871
Graphophone invented	1886
Gun and carriage, disappearing	1896
Gun-cotton discovered—Schönbein	1846
Half-tone printing by screen process	1852
Hammerless gun	1880
Harvester, self-raking	1851
Homeopathy—Hahnemann	1810
Horseshoe-making machine—Burden	1836
Hot blast for smelting iron—Neilson	1828
Hydrophobia bacillus discovered—Pasteur.	1882
Ice machine—Perkins	1834
Incandescent lamp, carbon filament for—Edison	1879
Iodine discovered—Courtois	1811
Iron castings, malleable—Lucas	1804
Jupiter's moons discovered—Galileo	1610
Kaleidoscope—Brewster	1814
Kerosene for illuminating	1826
Kinetoscope—Edison	1893
Knitting machine—Hooton	1776
Knitting machine—Jeandeau	1806
Knitting machine, circular—Braunel	1816
Lampblack, manufacture of	1844
Laughing gas as an anesthetic—Dr. Wells.	1844
Life preservers—London—Edwards	1805
Lightning rod—Franklin	1752
Linotype machine—Mergenthaler	1884
Liquefaction of air—Pictet	1877
Liquefaction of gases—Faraday	1823
Lithographic printing—England	1801
Locomotive, first steam—Trevithick	1804
Locomotive, Stevenson's first	1814
Locomotive, improved—Blenkinsop	1811
Locomotives for railroads—England	1802
Looms for figured fabrics—France	1800
Looms, pattern—Jacquard	1801
Magnetic induction—Faraday	1831
Marconi, wireless messages across the Atlantic	1902
Matches, friction—Walker	1827
Matches, Lucifer	1829
Matchlocks for guns	1567
Mechanical motion from electricity—Faraday	1821
Melodeons—Carhart	1836
Microscope—Germany	1621
Microphone—Edison	1877
Minie rifles—Minie—France	1833
Monitor, ironclad turret—Ericsson	1862
Mortising machine—Brunel	1801
Musical notes	1070
Muskets	1521
Nail-making machine—Wilkinson	1775
Needle gun	1856
Needles—England	1545
Neptune, planet of, discovered	1846
Nitro-glycerine discovered	1847
Nitrous oxide (laughing) gas as an anesthetic—Webb	1844
Oleomargarine invented—Mege	1868
"Old Ironsides," Baldwin's first locomotive.	1832
Omnibuses—Paris	1825
Padlock—Germany	1540
Paper collars—New York City	1853
Parlor skates	1863
Parrott gun—Parrott	1862
Passenger railway, first	1825
Percussion caps	1829
Percussion locks for guns—Forsyth	1807
Pendulums for clocks	1656
Pens, steel	1803
Phonograph—Edison	1877
Phonography—Pitman	1837
Photographic portraits—Draper	1839
Photographing in colors	1890
Photography, collodion process	1851
Photography, dry plate—Taupernot	1855
Photography, electric light	1876
Piano-forte—Italy	1711
Pin-making machine—Hunt	1817
Pins—France	1543
Pistols—France	1544
Planing machine—Bramah	1802
Plow, cast iron	1797
Postmark stamp—Norton	1859
Printing—Gutenberg	1436
Printing—China	900
Printing press, cylinder	1790
Printing press, perfecting—Hoe	1871
Propeller, twin screw	1804
Quinine—Pelletier	1820
Railway, first in U. S.—Quincy, Mass	1826

Railway, first steam—Trevithick	1804
Reaper—Hussey	1833
Reaper—McCormick	1834
Refrigerating machine	1870
Repeating rifle—Sharp	1848
Revolver—Colt	1836
Rifle, breech-loader	1851
Rifle, magazine—Spencer	1860
Rifle, magazine—Smith and Wesson	1854
Rifle, magazine—Krag-Jörgensen	1890
Rock drilling by compressed air	1866
Roller mills for flour making	1875
Ruling machines—London	1792

Saddles of leather	304
Safe, fireproof—Scott	1801
Safes, time lock for	1847
Safety lamp—Davy	1815
Scales, weighing—Fairbanks	1831
Seeding machine—Cahoon	1857
Sewing machine—Howe	1846
Sewing machine, four-motioned feed for—Wilson	1854
Shoe-pegging machine	1858
Shoe-sewing machine—McKay	1861
Sleeping car—Woodruff	1856
Smokeless powder	1889
Spectrum analysis	1859
Spinning jenny—England	1767
Spinning wheel	1530
Square-hole augur	1826
Steamboat—Fulton—Hudson River	1807
Steamboat, Ericsson's screw propeller	1838
Steam carriage—Blanchard	1825
Steam coach (automobile)—Trevithick	1801
Steamer "Savannah," first to cross the Atlantic	1819
Steam fire engine—Ericsson	1830
Steam hammer—Nasmith	1842
Steam loom—Horrocks	1803
Steam plow—United States—Bellinger	1833
Steam printing press, rotary—Hoe	1842
Steam turbine, rotary	1888
Steel cannon—Krupp	1849
Stereotyping introduced into the U. S	1813
Stethoscope—Laennec	1819
Storage battery and accumulator—Planté	1882
Storage battery—Ritter	1812
Storage battery, improved—Edison	1901
Street sweeper—Smith	1855
Sugar refining, vacuum pan process	1813
Suspension bridge at Niagara	1855

Tack-making machine—Blanchard	1806
Telegraph—Wheatstone and Cooke system	1835
Telegraph, duplex—Gentl	1853
Telegraph, fire alarm—Channing	1852
Telegraph, first message by Morse—Washington-Baltimore	1844
Telegraph, Morse's U. S. patent for	1840
Telegraph, Stearn's duplex	1872
Telegraph, quadruplex—Edison	1874
Telegraphy by induction—Smith	1881
Telephone—Bell and Gray	1875
Telephone—Reis	1860
Telephone transmitter—Berlinger	1877
Thermometer—Galileo	1569
Threshing machine—Scotland	1732
Torpedo shells—Bushnell	1777
Trolley line, first practical—Kansas City	1884
Tubular steam boiler—Seguin	1828
Twine binder for harvesters—Gorham	1874
Type-revolving machine—Hoe	1845
Typewriter—Remington	1878
Typewriter—Sholes	1868

Vaccination—Jenner	1780
Velocipede—France	1817
Violin, modern form of	1477
Voltaic arc—Davy	1808
Vulcanized rubber—Goodyear	1839

Watch-making machine—American	1850
Wire—Germany	1351
Wireless telegraphy—Marconi	1896
Wood paper—Watt	1853
Wood planer—Woodworth	1828
Wooden pavement—Nicholson	1854

X-Ray discovered	1895

Significance of the St. Louis Exposition.

History of the Louisiana Purchase; its Developement into States and its Importance as a Producing and Commercial Factor.

The Commemoration of the centennial of the purchase of the Louisiana Territory, by an International Exposition at St. Lòuis, in 1903,—opening postponed by President Roosevelt's proclamation of July 4, 1902, to April 30, 1904—renders apropos special mention of that momentous transaction and its marvellous consequences to the country.

Spanish Adventure.—Spain became acquainted with the mouth of the Mississippi in 1519, through Alverez de Pineda. Ten years later, De Narvaez touched at its mouth. In 1541, De Soto crossed it and perished on its banks near the mouth of the Arkansas. His followers arrived at its mouth on July 18, 1543, turned westward along the shores of the Gulf of Mexico, and ended the record of Spânish-Mississippi exploration.

French Occupation.—French exploration of the Mississippi was begun by Canadians. La Salle reached its mouth, April 7, 1682, and took possession of the country. Three years later Henri de Tonty returned and replanted further from the banks of the stream the column which La Salle had erected. In 1698, Louis XIV. sent an expedition which built a fort and established a permanent colony on the eastern side of Bolixi Bay. In 1712, a charter was granted for the government of Louisiana. This was a failure, and in 1718 another charter was granted to John Law. In 1717, De Bienville selected New Orleans as the site of a settlement, and was appointed governor. In 1733, it became the permanent headquarters of the colonial governor.

French and English Boundary.—After the seven years' war, in which France and England contended for final possession of the northern part of the continent, terminated with the Treaty of 1763, the Mississippi River and a line through Lake Pontchartrain became the western boundary of the English possessions.

Cession to Spain.—In 1762, by a secret treaty, France ceded her Louisiana Territory to Spain, to prevent it from falling into the hands of Great Britain. This treaty was not made public until the next year, and the ceremony of transfer did not take place until 1764.

Retrocession to France.—In 1800 (October 1), the King of Spain agreed with Napoleon to retrocede the Louisiana Territory to France. This caused great consternation in the United States, the people fearing it would result in the closing of the Mississippi to American commerce.

The Mission to France.—It was proposed in Congress that 50,000 militia be sent to capture New Orleans; but instead, a substitute was adopted to appropriate $2,000,000 for its purchase. On January 10, 1803, James Monroe was sent to coöperate with our then minister to France, Robert R. Livingston, for the purchase of New Orleans.

The American Purchase.—The American proposition to purchase New Orleans was met by a counter proposition to sell the entire Louisiana Territory for $20,000,000. The American representatives offered $10,000,000. The bargain was closed at $15,000,000, $11,250,000 in United States bonds, the balance ($3,700,000) to go to the payment of claims held by American citizens against France. The treaty of purchase and cession reached Washington on July 14. Congress was called into special session on October 17, 1803, and on October 28 the treaty was ratified amid much opposition. On December 20, the United States took possession at New Orleans.

Population.—According to French records the population of the territory in 1803 was 50,100 whites, 39,820 blacks, and 10,340 mulattoes; total, 100,260.

Transformation of the Purchase into Territories and States.

1804.—Territory of Orleans established with boundaries practically identical with those of the present State of Louisiana. Remainder of the Louisiana purchase designated as District of Louisiana.

1812.—Territory of Orleans admitted to the Union as the State of Louisiana. The name of the District of Louisiana changed to Missouri Territory.

1819.—Territory of Arkansas formed out of

Missouri Territory, including present State of Arkansas and large part of present Indian Territory and Oklahoma. In 1824 the western boundary of Territory of Arkansas was readjusted so as to exclude from its limits nearly all of present Oklahoma and part of present Indian Territory. In 1828 the western boundary was again changed to practically what it is to-day, and Arkansas was admitted as a State in 1836.

1821.—State of Missouri formed and admitted, with boundaries as at present except at northwest corner. Remainder of Louisiana Purchase retained title of Missouri Territory until 1834, when it was given title of the Indian Country.

1838.—Territory of Iowa formed, including present Iowa and all territory to the Canadian line and between the Mississippi and Missouri Rivers. In 1846, the present boundaries of Iowa were established and the State admitted to the Union.

1849.—Territory of Minnesota organized, comprising present State of Minnesota and the parts of North and South Dakota lying east of the Missouri River. In 1858 Minnesota was admitted as a State, and in 1861 the western part of its territory was combined with Nebraska and organized as the Territory of Dakota. Minnesota also includes about 52,319 square miles of the area of the original thirteen States.

1854.—Territory of Kansas organized, with its western boundary extending to the top of the Rocky Mountains, and including part of present Colorado. In 1861 Kansas was admitted as a State with present boundaries.

1854.—Territory of Nebraska organized, having its southern line same as present State of Nebraska, and including all the area to Canada on the north, and between the Missouri River and the Rocky Mountains. In 1867 Nebraska was carved out of this territory and admitted as a State.

1861.—Territory of Dakota organized from parts of Nebraska and Minnesota Territories. In 1863 Western Dakota was transferred to Idaho, and in 1889 the boundary between North and South Dakota was fixed, and the two sections admitted as States.

1861.—Territory of Colorado organized, its northeastern section being taken from the Louisiana purchase, its central and southeastern portion from the Texas annexation, and all the rest from the Mexican cession. Its boundaries were identical with the present State, and it was admitted into the Union, August 1, 1876.

1863.—Territory of Idaho organized from parts or Nebraska, Dakota and Washington, and including present Idaho, Montana and Wyoming. Therefore, only that part of it east of the Rocky Mountains was taken from the Louisiana purchase. The present State of Idaho was carved out of this Territory and admitted into the Union, July 3, 1890.

1864.—Montana Territory was formed from northeastern portion of Idaho Territory, and admitted as a State, November 8, 1889.

1868.—Wyoming Territory was organized from southeastern part of Idaho Territory. Admitted as a State, July 11, 1890. It has the singular distinction of containing within its boundaries parts of the Louisiana purchase, Texas annexation, Mexican cession and Oregon Territory.

Area.—The land area of the Louisiana purchase exceeded that of the original thirteen States, being 864,944 square miles, as against a total land area of 820,944 in the original thirteen States.

Population.—The States and Territories which have been created in whole or in part out of the Louisiana purchase number fourteen, and their population in 1900 was 14,708,616, or about a fifth of that of the entire union.

Productions.—Their productions in 1900 were: Wheat, 264,000,000 bushels, valued at $152,000,000, a total of 50 per cent of the entire production of the country; corn, 1,013,000,000 bushels, valued at $314,000,000, or 48 per cent of the total production of the country; oats, 311,000,000 bushels, valued at $71,000,000, or 38 per cent of the total production of the country; barley, valued at $10,000,000; rye, valued at over $2,000,000; potatoes, valued at $25,000,000; hay, valued at $130,000,000; cotton, valued at $50,000,000. The total agricultural products of the States formed from the Louisiana purchase had a value in 1900 of $755,000,000. The wool product was 100,396,982, valued at $15,000,000, or just the cost of the entire area. The value of farm animals in 1900 was $825,000,000. Add to these figures those for the minor productions, and it may be safely said that the agricultural products for the single year 1900 amounted to one hundred times the original cost of the area in which they were grown; in other words, that the entire cost ($15,000,000) of the Louisiana purchase is repaid each year by one per cent of what is grown upon its area.

Mineral Wealth.—The mineral products of the Louisiana purchase area are also of great value. It produced in 1899, 22,000,000 tons of coal; in 1900, 8,491,000 tons of iron ore; in 1899, $50,300,768 worth of silver, and $37,712,400 worth of gold.

Banking.—In 1900, the capital stock of the banks within this area amounted to over $80,000,000; circulation, $36,000,000; loans, $317,563,000; resources, $1,099,111,000; deposits in national banks, $329,699,000.

Education.—Educational statistics for the area showed in 1899, 3,161,112 enrolled scholars; 102,202 teachers; expenditure, $37,185,881; high schools, 113,847 scholars; 4,937 teachers; normal schools, 15,843 students; 625 teachers; higher institutions, 40,249 students; 3,925 teachers; total teachers in the area, 11,689; total attendance, 3,331,051.

Newspapers and Post Offices.—In 1900 the number of newspapers and periodicals within the area was 5,618; post offices, 16,228; railway mileage, 59,324 or 31 per cent of that of the entire country.

Possibilities.—The total area of the Louisiana purchase (875,025 square miles) nearly equals that of the United Kingdom, Netherlands, Belgium, Germany, France, Spain, Italy and Switzerland, which contain a population of 202,363,573. As the agricultural and mineral possibilities of the American area equal, if they do not excel, those of the European area named, it is not visionary to suppose that the former will come in time to support a population equal to the latter.

St. Louis Exposition Data.

Time.—The time authorized for the opening of the St. Louis, or Louisiana Purchase, Exposition was April 30, 1903, the date of the Treaty of purchase between the United States and France, but the opening was postponed until April 30, 1904.

Expenses.—The exposition entailed an expenditure estimated at $50,000,000, beginning with the sum of $15,000,000. Of this sum, some $5,000,000 was raised by popular subscription; the city of St. Louis appropriated $5,000,000 by means of a bond issue; the United States government appropriated $5,000,000, which sum was afterwards increased by a loan of $4,600,000.

Size.—This exposition had the largest enclosure of any in history. The area within its fences was 1,240 acres, as against 633 acres for the Columbian Exposition at Chicago in 1893, 336 acres for the Paris Exposition in 1900, and 300 acres for the Pan-American Exposition at Buffalo in 1901. Chicago had under roof 82 acres of exhibit floor space, whereas St. Louis had under roof 128 acres.

Site.—The Exposition was located about five miles from the west bank of the Mississippi River, on which St. Louis is situated. It was readily reached by a number of steam and street car lines. Beside the St. Louis hotels, many new ones were erected in the vicinity of the grounds, with accommodations for 50,000 people. Within the grounds stood an exposition hotel, and there was constructed an intra-mural overhead electric trolley line, with double tracks, which speedily switched visitors to all parts of the grounds.

Buildings.—The exposition comprised over 300 separate buildings, which ranged in size from the largest the Palace of Agriculture, covering about 20 acres, to the tiny intra-mural stations. All the leading buildings were connected with landscape and garden scenes of great beauty. All exhibition palaces opened at 9 A. M., and closed at sunset. While the buildings were more numerous than at any other exposition, they were also of superior architecture, greater beauty and better adapted for their purposes. Most of the States had handsome and convenient structures. Foreign nations were generally represented, and their buildings were proportioned in size and accommodation to the extent of exhibition funds provided by each. Among the largest and costliest buildings were the Administration buildings, costing $1,500,000; Palace of Agriculture, $529,940; Palace of Forestry, $171,000; Palace of Horticulture, $228,872; Palace of Art, $987,728; Palace of Transportation, $692,000; Palace of Varied Industries, $712,680; Palace of Manufactures, $719,400; Machinery Hall, $510,000; Palace of Mines, $498,000; Palace of Education, $367,363; Palace of Electricity, $415,352; U. S. government building, $450,000.

Exhibits.—The exhibits were arranged in sixteen leading departments—Education, Art, Liberal Arts, Manufactures, Machinery, Electricity, Transportation, Anthropology, Agriculture, Horticulture, Forestry, Mines and Metallurgy, Fish and Game, Social Economy, Physical Culture and Live Stock. These grand departments were subdivided into an extensive series of groups and classes covering every feature of the earth's resources and human activity.

Music.—No exposition ever provided more elaborate musical programs. An appropriation of $450,000 was made for this purpose, and there were bands of all nations.

Notable American Sobriquets.

Pen-names, Nicknames, Appellations and Fictional Characters.

Academic City.—A name for Worcester, Mass., in allusion to its numerous educational institutions.

Adirondacks.—A group of the Appalachian mountain system in New York State, from the Iroquois name of the Algonkians, meaning "he eats bark."

Alabama.—So called from its river Alabama, meaning in Indian "here we rest."

Alabama Claims.—See Geneva Award.

Albany Regency.—A name applied to a Democratic political junta, with headquarters at Albany, N. Y., formed in 1818.

Albion, New.—A name formerly applied to the west coast of North America, now included in the States of Oregon and Washington.

Almighty Dollar.—Personification of the supposed object of American idolatry. The expression originated with Washington Irving.

Apostle of the Indians. — Appellation of Rev. John Eliot (1604-1690), a missionary among the Indians of Massachusetts Bay.

Appalachian System.—The mountain chain extending from Alabama to Quebec, Canada, nearly 1,300 miles; highest peak, Mitchell High Peak, Yancey county, N. C., 6,688 feet. The range includes the White Mountains, New Hampshire; Green Mountains, Vermont; Adirondacks, New York; Alleghenies, Pennsylvania; Blue Ridge, Virginia; Black Mountains, North Carolina.

Athens of America. — A name sometimes applied to Boston, Mass., on account of its culture.

Arkansas. — An Indian name meaning "Bow Indians," experts with arrows. See Bear State.

Artemus Ward. — Pseudonym of Charles F. Browne, American writer and lecturer.

Autocrat of the Breakfast Table.—Pseudonym of Oliver Wendell Holmes, distinguished writer.

Badger State.—Nickname for Wisconsin, on account of the badgers there.

Baltimore.—See Monumental City.

Barnburners. — Nickname of Anti-Renters in New York State, who fired barns on patroon estates. Also name of a Democratic faction in that State in 1842 opposed to the Hunkers and extension of slavery.

Battle of the Kegs. — Title of a mock-heroic poem by Francis Hopkinson (1737-1791), founded on the Revolutionary incident of the Americans letting loose in the Delaware river a number of charged kegs against the English shipping at Philadelphia.

Bayou State.—Nickname for Mississippi, on account of its bayous.

Bay State.—Popular name for Massachusetts, because once the colony of Massachusetts Bay.

Bear State.—Nickname for Arkansas, from the number of bears once there.

Ben Hur.—Jewish hero of Gen. Lew Wallace's novel of "Ben Hur."

Biglow, Hosea.—Imaginary author of humorous satirical poems in Yankee dialect, written by James Russell Lowell and relating to the Mexican War and Slavery. Generally called "The Biglow Papers."

Big Bend State.—Nickname for Tennessee, on account of the big bend in its river.

Billings, Josh.—Pseudonym of Henry W. Shaw, an American humorist (1818-1885).

Birch, Harvey.—The spy in Cooper's novel, "The Spy."

Black Jack. — Nickname for Gen. John A. Logan, on account of his dark complexion.

Black Man.—Designation for the devil in New England witchcraft times.

Blue Hen's Chickens, The. — Cant name for State of Delaware. One Captain Caldwell raised game cocks on the theory that none could be good unless the mother was a blue hen. Hence for his breed was substituted the expression "Blue Hen's Chickens."

Blue Lights. — Certain Federalists during the War of 1812, who were charged with secretly signaling British vessels with a system of blue lights.

Boston Massacre.—Attack of part of the British garrison upon a street crowd in Boston, March 5, 1770, by which several were killed and wounded.

Boston Tea Party.—Popular name for the party disguised as Indians, which boarded the British vessel, December 13, 1773, in Boston harbor, and threw the cargo of tea overboard.

Breitmann, Hans.—Pseudonym of Charles G. Leland, author of the "Breitmann Ballads."

Brook-Farm Community.—A socialistic society, started in 1841 at West Roxbury, Mass. Dissolved 1847.

Brother Jonathan. — A humorous designation for the collective people of the United States, said to have originated from Washington's reference to Jonathan Trumbull, Governor of Connecticut, as "Brother Jonathan."

Buckeye State.—Nickname of Ohio, from the buckeye trees which abound there.

Buffalo Bill. — Sobriquet of William F. Cody, a former well-known scout on the Western plains.

Bulwer-Clayton Treaty. — See Clayton-Bulwer Treaty.

Burlington Hawkeye Man.—Sobriquet of Robert J. Burdette, once humorous editor of the "Burlington Hawkeye."

Butternuts.—Nickname of the Confederates in the Civil War, from the color of their clothes, resembling the shell of the butternut.

California. — In Spanish the name signifies "abundance of gold." See Golden State.

Castle Garden.—Battery Park, New York City, originally Castle Clinton; built originally, 1807; successively a fort, place of entertainment and landing place for immigrants; now an aquarium.

Centennial State.—Popular name of Colorado, because admitted in 1876.

Chicago.—See Garden City; Windy City.

Chingachgook.—A Mohican Sagamore — called also the "Great Serpent"—in Cooper's "Leather Stocking Tales."

Cincinnati. — A society established in the United States to perpetuate the friendship of officers of the Revolutionary Army and relieve the widows and orphans of those killed.

Cincinnati.—See Porkopolis.

City of Brotherly Love.—Philadelphia, Pa., is sometimes so-called, from the literal meaning of its name.

City of Churches.—A popular name for Brooklyn, N. Y., on account of its numerous churches.

City of Elms.—Popular name for New Haven, Conn., on account of the elm trees which shade its streets.

City of Magnificent Distances.—Popular name of Washington, D. C., because it is laid out on a large and grand scale.

City of Spindles. — Popular name of Lowell, Mass., on account of the extent of its cotton manufactures.

City of the Straits.—Popular designation of Detroit, Mich., from its location on the strait joining Lakes St. Clair and Erie. Detroit is French for "strait."

Clayton-Bulwer Treaty.—July 4, 1850, between the United States and Great Britain, provided that neither country should have exclusive control of any interoceanic canal in Central America, or erect fortifications in the country.

Colorado. — Named after the Colorado or "bloody river" in Indian. See Centennial State.

Connecticut.—Indian name for its main stream, "long river." See Nutmeg State and Land of Steady Habits.

Coolidge, Susan. — Pen-name of the popular American writer, Mrs. Sarah Chauncey Woolsey.

Corn Cracker.—Nickname for State of Kentucky. The inhabitants are often called "corn crackers."

Cradle of Liberty.—Popular designation of Faneuil Hall, Boston, as the place where the Revolutionary orators were accustomed to meet and speak.

Crane, Ichabod.—Name of the credulous Yankee schoolmaster in Irving's "Legend of Sleepy Hollow."

Crayon, Geoffrey. — Pseudonym under which Washington Irving published his "Sketchbook."

Creole State.—Nickname of Louisiana, in which there are many Creoles, or descendants of French and Spanish settlers.

Crescent City.—Popular name for New Orleans, because founded on a bend, or crescent, of the Mississippi river.

Creyton, Paul. — Pseudonym of the American novelist and poet, J. T. Trowbridge.

Croaker & Co.—Pseudonym of Joseph R. Drake and Fitz-Greene Halleck in the celebrated "Croaker Papers," 1819.

Cuffee or Cuffey.—Cant name for a negro or "Sambo." Probably an African word.

Danbury News Man. — Sobriquet of James Montgomery Bailey, American humorist and editor of the "Danbury News," Conn.

Dark and Bloody Ground.—Nickname for Kentucky, from the former fierce contest between whites and Indians.

Dead Rabbit Riots. — Outbreak in the Bowery and Five Points, New York City, July 4-5, 1851, between gangs known as "Dead Rabbits" and "Boney Boys."

Death Valley.—A valley noted as fatal to life, in Inyo county, California, between Amargosa and Panamint mountains.

Deer-Slayer. — Nickname of Natty Bumpo, in Cooper's novel of "The Deer-Slayer."

Delaware.—Named after Lord De la War. See Blue Hen's Chickens and Diamond State.

Demarcation Point.—The Arctic Ocean at the boundary between Alaska and British North America, at longitude 141 degrees west.

Diamond State.—Nickname for Delaware, from its shape.

Dixie. — An imaginary place in the Southern States, celebrated in negro melody as a kind of Paradise. Also a collective designation of the Southern States.

Doe, John.—A sham plaintiff in ejectment actions, coupled with Richard Roe as a defendant.

Doesticks, Q. K. Philander.—Pen-name of Mortimer Thompson (1832-75), a noted American humorist.

Dorr's Rebellion.—The attempt to extend suffrage in Rhode Island (1842) against charter restrictions.

Downing, Jack.—Pseudonym of the comic American writer in Yankee dialect, Seba Smith.

Dragon of Wantley.—The monster which figures in Henry Carey's burlesque of the same name.

Dry Tortugas. — An island in Monroe county, Florida, west of Florida Keys, on which are two lighthouses and a military prison.

Dutchy.—Nickname of Gen. Franz Sigel, used by his soldiers during the Civil War.

Eastern Shore.—Those parts of Virginia and Maryland lying east of the Chesapeake Bay, noted for fruits and oysters.

East River Bridge.—The new bridge over the East river, New York, opened for traffic December 19, 1903.

Edith May.—Pen-name of Anna Drinker, an American poetess whose works were published in 1851 and 1854.

Egypt.—Nickname of the southern part of Illinois, in the neighborhood of Cairo.

Elm City.—See City of Elms.

Empire State.—New York State is sometimes so-called from its being the first State of the Union in population and wealth.

Empire State of the South.—Georgia is so-called from its eminence among Southern States.

Evangeline.—Heroine of Longfellow's poem of the same name, based on the expulsion of the Acadians, 1755.

Everglades.—The extensive swamp regions of Florida.

Evergreen. — Pen-name of Washington Irving in "Salmagundi," etc.

Excelsior State.—The State of New York, so-called from the motto "Excelsior" on its coat-of-arms.

Expounder of the Constitution.—A title conferred on Daniel Webster (1782-1852) for his elaborate exposition of the Federal Constitution.

Expunging Resolution.—A resolution adopted by the United States Senate, March 16, 1837, cancelling the resolution of March 28, 1834, charging President Jackson with unconstitutional practices.

Father Abraham. — Pen-name of Benjamin Franklin. Sobriquet of Abraham Lincoln.

Father of America. — Sobriquet of Samuel Adams, the Revolutionary orator.

Father of His Country.—An appellation popularly conferred in America on George Washington.

Father of Waters.—A popular name of the Mississippi river, on account of its great length and numerous tributaries.

Fern, Fanny.—Pseudonym of Mrs. Sara Parton, nee Sara Pays Willis (1811-1872), a popular American authoress.

Fighting Joe. — Sobriquet of Gen. Joseph Hooker during the Civil War.

Florida. — See Peninsular State and Land of Flowers.

Flour City.—Nickname for Rochester, N. Y., from its numerous flour mills.

Flower City.—Springfield, Ill., is often so-called from its picturesque environs.

Forest City.—Cleveland, Ohio; Portland, Me., and Savannah, Ga., are frequently so designated.

Forrester, Fanny.—Pen-name of Miss Emily Chubbuck (1817-1854), an American authoress and Indian missionary.

Freestone State.—An appellation of Connecticut, from its freestone quarries.

Garden City.—Popular name for Chicago, probably from the motto on its seal—"Urbs in Horto," city in a garden.

Garden of the Gods. — A valley in El Paso county, Colorado, covered with isolated and fantastically eroded rocks of curious imitative forms.

Gate City.—Savannah, Ga., from its strategical importance. Keokuk, Iowa, is also so called from its location at the foot of the Mississippi rapids.

Gates of the Rocky Mountains.—The gorge of the Missouri river, near Helena, Mont.

Gath.—Pen-name of the American writer, George Alfred Townsend.

Gem of the Mountains. — Nickname for the State of Idaho.

Geneva Award.—The findings and decision of the tribunal of arbitration sitting at Geneva, Switzerland, which, in 1872, adjudged that Great Britain should pay to the United States $15,000,000 for damage done to American commerce during the Civil War by Confederate cruisers built, equipped and manned in British ports.

Georgia.—Named from George II. See Empire State of the South.

Gertrude of Wyoming. — Heroine of Thomas Campbell's poem of the same name.

Gnadenbrutten Massacre.—The killing of Indian converts by Ohio volunteer militia, March, 1782.

Golden State.—Nickname for California, from its gold.

Good Gray Poet.—A name bestowed by his admirers on the American poet, Walt Whitman.

Gopher State.—A nickname for Minnesota, from the animal.

Gotham. — Popular name for New York City. First applied in Irving's "Salmagundi," and borrowed from the English nursery rhyme of "The Merry Tale of the Men of Gotham," who were proverbial for their follies.

Granite State.—Popular name for New Hampshire, on account of its granite hills.

Green Mountain State.—Popular name for Vermont—"verd," green, and "mont," mount.

Greenwood, Grace. — Pen-name of Sarah Jane Lippincott (nee Clarke), a noted American authoress.

Gulf Stream.—That vast ocean current flowing from the direction of the Gulf of Mexico northward along the Atlantic coast of the United States, then diverted westward by Newfoundland toward Great Britain and Scandinavia.

Hamilton, Gail.—Pseudonym of the American authoress, Miss Mary Abigail Dodge.

Hans Breitmann. — Pen-name of Charles G. Leland as author of the "Breitmann Ballads."

Harland, Marion.—Pen-name of the American novelist, Mrs. Mary Virginia Terhune.

Hartford Convention. — The meeting of delegates from New England States to oppose President Madison's war policy. They were accused of plotting disunion.

Hawkeye State. — Nickname for the State of Iowa.

Hay-Bunau-Varilla Treaty.—The treaty negotiated between the United States and the New State of Panama (1903), relative to right of way for the Panama Canal across the isthmus.

Hay-Herran Treaty.—The treaty negotiated between the United States and Colombia, relative to right of way for the Panama Canal across the isthmus. Ratified by the United States Senate, March, 1903, but rejected by Colombia.

Hell Gate.—The narrow channel of East river, New York, formerly very dangerous. Rock removed in 1885.

Hemans of America.—Sobriquet of the American poetess, Mrs. Lydia Huntley Sigourney (1791-1865).

Hester Prynne. — The unfortunate heroine in Hawthorne's "Scarlet Letter."

Hiawatha.—The mythical Indian who became the hero of Longfellow's "Hiawatha."

Holm, Saxe.—Pen-name of the author of the "Saxe Holm Stories," and presumably Mrs. Helen Hunt Jackson, an American poetess (1831-1885).

Honest Abe.—A sobriquet of Abraham Lincoln, sixteenth President of the United States.

Hoosier State.—Nickname for the State of Indiana. Origin not known.

Hosea Biglow. — Pen-name of James Russell Lowell in the "Biglow Papers."

Hotspur.—Pen-name of Mansfield Tracy Walworth (1830-1873), a distinguished American author and lawyer.

Hub of the Universe.—A burlesque designation of Boston, originating with Dr. Oliver Wendell Holmes.

Ichabod Crane.—See Crane, Ichabod.

Idaho.—See Gem of the Mountains.

Illinois. — From a confederation of Indian tribes, meaning "superior men." See Prairie State and Sucker State.

Indiana.—Probably from the word Indian. See Hoosier State.

Instar Omnium.—Sobriquet of Samuel Adams, of Massachusetts, used in a letter written (1771) by Governor Hutchinson to Pownall.

Iowa. — From an Indian designation meaning "sleepy ones." See Hawkeye State.

Iron City.—Nickname for Pittsburg, Pa., on account of its iron manufactures.

Jonathan Oldstyle.—Pen-name of Washington Irving as contributor to the "New York Morning Chronicle," 1802.

Josh Billings.—Pen-name of Henry W. Shaw (1818-1885), a noted American humorist.

Julien Gordon. — Pen-name of Mrs. S. Van Rensselaer, an American novelist.

Kansas.—From Indian name of the Kansas river, meaning "smoky water."

Kentucky.—From Indian name of its principal river. See Corn Cracker and Dark and Bloody Ground.

Kerr, Orpheus C.—Nom de plume of the American humorist, R. H. Newell, born in 1836.

Keystone State.—A name given to Pennsylvania, as the middle of the arch composed of the thirteen original States.

King Cotton. — Personification of the chief staple of the Southern States. James H. Hammond, of South Carolina, used the expression "Cotton is king" in a speech in the United States Senate March 4, 1858.

Kirke, Edmund.—Pen-name of the American writer, John Roberts Gilmore (b. 1823), author of "Among the Pines," etc.

Kitchen Cabinet.—Derisive title bestowed by the Whigs on the coterie of secret advisers of President Jackson because they called on him by the back door.

Knickerbocker, Diedrich.—An imaginary author of a humorous and fictitious "History of New York" written by Washington Irving.

Kriss Kringle.—The Dutch equivalent of St. Nicholas and Santa Claus, the Christmas benefactors of children.

Ku-Klux-Klan.—A secret society formed in the Southern States, whose object was to prevent negroes and northern immigrants from holding political control.

Lake of the Cat.—A name given to Lake Erie when first discovered by white men.

Lake of the Clouds.—A lake in New Hampshire, so-called from its elevation, 5,053 feet above sea level.

Lake State.—Popular name for the State of Michigan, which borders on Huron, Erie, Michigan and Superior.

Land of Flowers.—The meaning of the word Florida, a name conferred on its discovery by Ponce de Leon, 1512.

Land of Steady Habits.—A designation of Connecticut, from the characteristics of its people.

Last of the Mohicans.—The Indian chief Uncas, hero of Cooper's novel, "Last of the Mohicans."

Last of the Puritans. — Samuel Adams, an American patriot, was so styled by Edward Everett, 1825.

Learned Blacksmith.—An epithet applied to Elihu Burritt (1810-1879), who began life as a Connecticut blacksmith and afterward became distinguished as a linguist.

Leather-Stocking, Natty.—Sobriquet of Nathaniel Bumppo, a celebrated character in Cooper's "Leather-Stocking Tales."

Legree.—A character who was made to typify the cruel slave dealer in "Uncle Tom's Cabin."

Lenore.—The heroine in Edgar A. Poe's mystic ballad of "The Raven."

Libby Prison.—The notorious military prison at Richmond, Va., during the Civil War, formerly a tobacco warehouse.

Light Horse Harry.—A popular sobriquet conferred on Gen. Henry Lee (1756-1818), an American cavalry officer during the Revolution, who distinguished himself by rapid marches through the Carolinas.

Little Giant.—A popular sobriquet conferred on Stephen A. Douglas (1813-1861), the distinguished United States Senator from Illinois. It alluded to his small body and large intellect.

Little Mac.—A sobriquet conferred by his soldiers on Gen. George B. McClellan, in allusion to his short stature and large popularity.

Little Magician. — A sobriquet bestowed on Martin Van Buren (President, 1837-1841), in allusion to his supposed political sagacity.

Little Rhody.—A popular designation of Rhode Island, smallest State in the Union.

Long Tom Coffin. — The hero of Cooper's "Pilot;" a man of action and an ideal sailor.

Lone Star State.—Appellation of the State of Texas, from the device on its coat-of-arms.

Louisiana. — So named from Louis XIV of France. See Creole State.

Lumber State.—The State of Maine is frequently so designated, from its lumber.

McBride, Miss.—The heroine of great expectations, whose history is humorously related in a poem of the same name by John G. Saxe.

MacFlimsy, Flora.—The fashionable lady of Madison Square, New York city, who is the heroine of William Allen Butler's poem of "Nothing to Wear."

Mad Anthony.—A sobriquet of Gen. Anthony Wayne (1745-1796), distinguished for his military skill and dashing qualities as a Revolutionary officer.

Maine.—It means "mainland;" that portion of New England granted by Charles I to Ferdinand Gorges. See Pine Tree State and Lumber State.

Man in the Moon.—The dark spots in the moon to which superstition ascribes the figure of a man bearing brushwood on a fork. Numbers xv: 32-36, is doubtless accountable for the origin of the legend.

Marvel, Ik. — Nom de plume of Donald G. Mitchell (b. 1822), a popular American author.

Maryland.—So named from Henrietta Maria, Queen of Charles I. See Oyster State.

Mason and Dixon's Line.—The boundary between Pennsylvania and Maryland, surveyed by Charles Mason and Jeremiah Dixon (1763-1767), and which afterward came popularly to mark the division between free and slave territory.

Massachusetts. — From the name of an Indian tribe. See Bay State.

Michigan.—From the Indian name, signifying "lake country." See Wolverine State.

Mill-Boy of the Slashes.—Sobriquet conferred on Henry Clay (1777-1852), born in Hanover county, Va., near a place known as the "Slashes," where a mill stood, to which he was often sent as a boy.

Miller, Daisy.—Heroine and title of the story by Henry James, Jr., narrating the adventures of an American girl in Europe.

Minnehaha.—Indian word meaning "Laughing Water." She becomes the wife of Hiawatha in Longfellow's poem of the same name.

Minnesota.—Indian for "turbid water," probably the St. Peter's river. See Gopher State.

Miriam. — The mysterious woman in Hawthorne's romance, "The Marble Faun."

Mississippi. — An Indian term meaning "the great river." See Bayou State.

Mississippi Bubble.—Sometimes called "Law's Bubble" and "South Sea Bubble." The delusive speculation projected by John Law (1671-1729), of Edinburgh, Scotland, whereby a Mississippi Company having land grants in Louisiana was expected to realize immense sums by planting and commerce.

Missouri.—An Indian name of a tribe and the river, meaning "muddy water."

Missouri Compromise.—Name given to the Act of Congress passed in 1820, admitting Missouri as a slave State, but providing that slavery should not exist in the future in any State formed north of 36° 30′.

Modern Athens.—An epithet applied to Boston, Mass., on account of the intelligence of its citizens and number of literary institutions.

Monumental City. — The city of Baltimore, from its many monuments.

Mother Ann. — Title conferred on Ann Lee (1736-1784), spiritual mother and leader of the Shaker sect.

Mother of Presidents.—A name frequently applied to Virginia, which has furnished many Presidents of the United States.

Mother of States. — Virginia is sometimes so called from having been first settled of the thirteen States which united in the Declaration of Independence.

Mound City.—Popular name of St. Louis, on account of the number of mounds on the site it now occupies.

Nasby, Petroleum V.—Pen-name of David Ross Locke (1833-1888), a popular American humorist, and editor of "Toledo Blade."

Nebraska. — From Indian name of its river, meaning "shallow water."

Nevada.—From the Spanish, meaning "snowy." The Sierra Nevada are the "snowy mountains." See Silver State.

New Albion.—Name given to the Pacific coast now included in the States of Oregon and Washington.

New Amsterdam. — Early name of New York City, when occupied by the Dutch.

New England.—Name under which are grouped Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.

New Hampshire.—See Granite State.

New Jersey.—So named by its first proprietor, Sir George Carteret, in honor of the defense of the Isle of Jersey.

New Netherlands. — Original Dutch name for the province afterward named New York State.

New Sweden.—The territory claimed by Sweden, in the seventeenth century, between Virginia and New York.

New York.—Originally New Amsterdam, after Amsterdam in Holland. Name changed in honor of Charles II when he was Duke of York. See Empire State and Excelsior State.

North Carolina. — Carolina was named after either Charles I of England or Charles IX of France. See Tar State and Old North State.

North River. — The Hudson near New York City is so called to distinguish it from the Delaware, or South river.

Northwest Territory.—The non-slavery region north of the Ohio river and between Pennsylvania and the Mississippi. Now divided into five States.

Nutmeg State.—Popular name for Connecticut, whose people have been accused of palming off wooden nutmegs for the genuine article.

Nym Crinkle. — Pen-name of Andrew C. Wheeler, a popular American journalist.

Ohio.—An Indian name meaning "beautiful" or "great river." See Buckeye State.

Old Bullion.—A sobriquet conferred on Thomas H. Benton (1782-1858), on account of his advocacy of a gold and silver currency.

Old Colony.—Popular name of that part of Massachusetts embraced in the Plymouth Colony, formed before the colony of Massachusetts Bay.

Old Commoner.—Title applied to the Pennsylvania statesman, Thaddeus Stevens, on account of plain views and long service in Congress.

Old Dominion.—Popular name for Virginia, to distinguish it from all the other colonies once embraced under the title of "Colony and Dominion of Virginia."

Old Glory. — Popular name for the United States flag.

Old Hickory.—A sobriquet conferred on Gen. Andrew Jackson by his soldiers in 1813.

Old Hunkers.—A nickname formerly conferred on the conservative element of the Democratic party, especially in New York State.

Old Ironsides.—Popular name for the United States frigate "Constitution," launched at Boston, September 20, 1797. Her career in the war with Tripoli (1804) and in the War of 1812 has been celebrated in "Old Ironsides," a poem by Oliver Wendell Holmes.

Old Man Eloquent. — An expression derived from Milton and popularly applied to John Quincy Adams, sixth President of the United States.

Old Man of the Mountain.—A term applied to a projection of Profile Mountain, New Hampshire, which resembles a human face when viewed from a certain angle.

Old North State.—A popular designation of the State of North Carolina.

Old Probabilities.—A nickname for the United States Weather Bureau; curtailed to Old Probs.

Old Public Functionary.—Sobriquet applied to James Buchanan, by himself, in his annual message to Congress in 1859.

Oldstyle, Jonathan.—Nom de plume of Washington Irving as contributor (1802) to the "Morning Chronicle," a Democratic journal of New York City.

Omnibus Bill.—Henry Clay's Compromise bill of 1850, because of its provisions as to slavery or freedom for various Territories seeking Statehood.

Oneida Community.—A communistic village in Madison county, N. Y., founded by J. H. Noyes in 1838.

Optic, Oliver. — Pseudonym of William Taylor Adams (b. 1822), the American writer of juvenile works.

Oregon. — Indian name of its river, meaning "River of the West."

Osawatomie Brown.—Sobriquet of John Brown, the Abolitionist, who made a fight at Osawatomie, Kans., against pro-slavery missionaries who invaded the State.

Oyster State. — Name sometimes applied to Maryland, on account of its oyster industry.

Palmetto State.—Nickname for South Carolina, from the palmetto tree on its coat-of-arms.

Panama Canal.—The canal projected across the Isthmus of Panama; begun by a French company under De Lesseps, 1881; title sold to the United States, 1903, for $40,000,000.

Panhandle State. — Nickname for West Virginia, from its long, narrow projection between the Ohio river and the State of Pennsylvania.

Parley, Peter.—Pen-name of Samuel G. Goodrich (1793-1860), American author of popular juvenile books.

Pathfinder.—Title of one of Cooper's Leather-Stocking series of stories, and sobriquet of its hero, Natty Bumppo. The Western explorer, Gen. John C. Fremant (1813-1890), was called "The Pathfinder of the Rocky Mountains."

Paupuckkeewis.—The mischievous magician in Longfellow's "Hiawatha."

Peninsular State. — Florida is often so called, from its shape.

Pennsylvania. — From Penn and Sylva, wood, equal to Penn's wood. See Keystone State.

Pennsylvania Farmer. — Pen-name of John Dickinson (1732-1808), of Pennsylvania, as a writer (1768) of a series of letters to the British colonies. They were published in London and Paris.

Pepper, K. N.—That is, "Cayenne Pepper," a punning pen-name of James W. Morris, an American humorist.

Philadelphia.—See City of Brotherly Love.

Pictured Rocks.—Cliffs on the southern shore of Lake Superior, consisting of eroded figures on the sea face.

Pine-Tree State.—Popular name for the State of Maine, on account of its pine forests.

Plowshare, John.—Pen-name of Alfred Sharpless (1821-1903), of West Chester, Pa., an eminent political writer and reformer. Member of the Society of Friends.

Poor Richard.—See Saunders, Richard.

Porcupine, Peter.—Pseudonym of William Corbett (1762-1835), author of the "Porcupine Papers" and editor of "Peter Porcupine Gazette," established in Philadelphia, 1796.

Porkopolis.—Cincinnati was so called at a time when it was noted as a hog-slaughtering center.

Porte Crayon. — Pen-name of David Hunter

Strother, artist and author of "Sketches in Virginia."

Prairie State.—A name by which the State of Illinois is sometimes called, owing to its prairie stretches.

Prynne, Hester.—Heroine of Hawthorne's "The Scarlet Letter."

Pure, Simon. — Name of the Pennsylvania Quaker introduced into Mrs. Centlivre's comedy of "A Bold Stroke for a Wife." "Simon Pure" has come to mean "the real man," "the genuine article."

Puritan City.—A name sometimes applied to Boston, in allusion to the character of its founders and early settlers.

Quackenbos. — Pseudonym of George Payne (1826-1881), American teacher and author.

Quaker City.—Popular name for Philadelphia, settled by Penn and his colony of Friends.

Quaker Poet.—A common designation of John Greenleaf Whittier (1807-1892), the distinguished American poet, who was a member of the Society of Friends.

Queen City.—A popular name for Cincinnati when it was the commercial metropolis of the West.

Rail Splitter.—A popular designation of Abraham Lincoln (1809-1865), from the fact that the splitting of rails was one of his employments when young.

Redcoats.—A name given by the Americans to the British soldiery during the Revolution, from their scarlet uniform.

Rhode Island.—With some, from the "Isle of Rhodes;" with others, from the Dutch word "Roode," red island. See Little Rhody.

Roe, Richard.—A nominal defendant in ejectment actions, coupled with John Doe as plaintiff.

Rough and Ready.—A sobriquet given to Gen. Zachary Taylor (1784-1850), twelfth President of the United States.

Sage of Monticello.—Sobriquet of Thomas Jefferson, so called from his home in Virginia.

St. Nicholas. — Patron saint of boys, and the present-giver at Christmas.

St. Tammany. — The Delaware Indian chief Tammenund (Tammany). The name was adopted by the Tammany Society of New York City, founded in 1789, which subsequently became the Democratic political club called Tammany Hall.

Salt River.—An imaginary river up which defeated political candidates are supposed to be sent to oblivion. "To row up Salt river" is a phrase traceable to a Kentucky stream whose passage was made difficult by its crooked course, sand-bars and shallows.

Sam.—A popular name for the Know-Nothing or Native American party, in allusion to "Uncle Sam," personification of the United States Government.

Sam, Uncle.—See Uncle Sam.

Sambo. — Colloquial or humorous name for a negro.

Santa Claus.—Dutch name for St. Nicholas.

Saunders, Richard.—The feigned name under which Benjamin Franklin, in 1732, began the publication of his "Poor Richard's Almanac."

Secessia.—A popular collective name used to designate the States which seceded from the Union (1860-1861).

Silver State.—Nickname of Nevada, on account of its silver.

Skinners.—Members of a predatory band during the Revolution, who professed allegiance to the Americans but plundered between the two contending armies.

Slick, Sam.—Title and hero of various humorous narratives exaggerating Yankee character and dialect, and written by Judge Thomas C. Haliburton, of Nova Scotia.

South Sea.—Name given the Pacific Ocean on its discovery by Balboa, 1513.

South Sea Bubble. — That stupendous English stock-jobbing scheme under the lead of the South Sea Company (1720), which burst in the same year, wrecking thousands of fortunes.

Stonewall Jackson. — A sobriquet of Gen. Thomas Jonathan Jackson (1824-1863), given during the Civil War, because of the brave stands made in battles by him and his Confederate soldiers.

Sucker State.—A cant name for Illinois, whose inhabitants are called "Suckers." The name is traced to the habit of early travelers who, in making their way across the State, sucked their drinking water through a reed from the holes made by the fresh-water crawfish.

Swamp Fox. — A nickname for Gen. Francis Marion, of South Carolina, leader of a patriot band during the Revolution, who, after harassing the British, made many successful escapes into the swamps and forests.

Symmes' Hole. — Named after Capt. John C. Symmes, an American soldier (1780-1829), who supposed there was an immense opening in the earth at the Pole, communicating with the interior of the world.

Tammany, St.—See St. Tammany.

Tar State. — Nickname of North Carolina, on account of its tar products.

Tennessee.—Perhaps so named from the Cherokee settlement called "Tanasse." See Big Bend State.

Texas.—Some say from an Indian tribe of the same name; some from the Spanish "tejas," covered houses. See Lone Star State.

Tippecanoe.—Sobriquet of Gen. W. H. Harrison, conferred during his canvass for the Presidency, on account of his victory over the Indians, November 6, 1811, at the junction of the Tippecanoe and Wabash rivers.

Titcomb, Timothy.—Pen-name of J. G. Holland (1819-1881), the popular American author and journalist.

Topsy.—The ignorant but jovial slave-girl in "Uncle Tom's Cabin," who is made to show the capacity of the negro race for education.

Twain, Mark.—Pen-name of the American humorist, Samuel Langhorne Clemens. It was originally the nom de plume of Capt. Isaiah Sellers, a writer of river news for the "New Orleans Picayune."

Uncas.—"The Last of the Mohicans" in Cooper's novel of the same name.

Uncle Remus.—Hero and title of the book by Joel Chandler Harris, which pictures an old plantation darkey, full of songs and folk-lore and much native wisdom respecting "Brer Rabbit," "Brer Fox" and other animal characters.

Uncle Sam.—Colloquial nickname of the United States Government. Uncle Sam was the local nickname of Samuel Wilson, Government inspector of provisions at Troy, N. Y., during the War of 1812. The initials U. S. (United States) marked on the casks were facetiously interpreted as standing for Uncle Sam (Samuel Wilson).

Uncle Tom.—The negro slave, noted for piety and fidelity, whom Mrs. Stowe made the hero of her "Uncle Tom's Cabin."

Underground Railroad. — Popular embodiment of the numerous ways in which negroes escaping from slavery were assisted in their flight to the North or to Canada.

Utah.—From the Ute tribe of Indians of Utah and Colorado.

Venner, Elsie.—Title and heroine of a remarkable novel by Oliver Wendell Holmes, in which a snake-bite is supposed to have contributed both personal beauty and traits of character.

Vermont.—From the French verd mont, green mountain. See Green Mountain State.

Virginia.—So called in honor of Elizabeth, "the Virgin Queen." See Old Dominion, Mother of States, Mother of Presidents.

Wagoner Boy, The.—Sobriquet of Hon. Thomas Corwin (1794-1865), the American statesman, who, while a lad, was a teamster in Gen. Harrison's army.

Ward, Artemus.—Pseudonym of Charles Farrar Browne (1834-1867), an American humorist, whose productions were supposed to have emanated from an itinerant showman.

Western Reserve.—The land reserve of 3,666,921 acres made by Connecticut at the time of the cession of the Northwest Territory to the United States. It is now a part of Ohio.

West Virginia.—See Panhandle State.

Whiskey Insurrection. — Popular name of the outbreak of 1794 in Western Pennsylvania, on account of the excise on whiskey imposed by the law of 1791. It spread to Virginia, and was suppressed by an armed force led by Gen. Henry Lee, Governor of Virginia.

White House, The.—A name popularly given to the executive mansion at Washington, which is a large building of freestone painted white. Colloquially, the office of the President.

Windy City.—Chicago is sometimes so called, on account of its severe lake winds.

Winkle, Rip Van.—The good-natured, idle and bibulous Dutch settler of New York, whose adventures and twenty years' sleep are narrated by Washington Irving in his "Sketch Book."

Wisconsin. — Named from its chief river, the "Ouisconsin" of the French, meaning "flowing westward." See Badger State.

Wise Men of Gotham.—See Gotham.

Wolverine State.—Nickname of Michigan and its inhabitants. Probably from the number of wolves.

Yankee.—Generally regarded as the Indian pronunciation of the word English (Yengese) or the French word Anglais. A nickname generally applied to a native of New England or of a Northern State.

Yankee Doodle. — Name of a tune popularly adopted as one of the national airs of the United States; also, humorously, a Yankee.

Yellow Jack.—A common designation of the yellow fever; also, of a quarantine flag, which is yellow.

Young America. — Popular collective name of American youth, and personification of their supposed characteristics.

Postal Service of the United States.

[*Report of Postmaster-General.*]

		1902.	1903.
Ordinary postal revenue		$119,958,229	$131,984,535
Receipts from money-order business		1,889,818	2,239,908
Total receipts from all sources		$121,848,047	$134,224,443
Total expenditures for the year		124,785,697	138,784,488
Excess of expenditures over receipts		$2,937,650	$4,560,045
Estimated revenue for 1904	$146,304,643		
Appropriation for 1904	153,511,549		
Estimated deficit for 1904	$7,206,906		
Estimated revenue for 1905	$159,472,061		
Estimated expenditures for 1905	168,085,770		
Estimated deficit for 1905	$8,613,709		
Number of post offices		75,924	74,169
Number of money-order offices		31,680	34,547
Number of domestic money-orders issued		40,474,327	45,941,681
Domestic money-orders issued (amount)		$313,551,280	$353,627,648
Number of domestic post routes		34,720	33,448
Total mileage of postal routes		507,541	506,268
Annual miles traveled		474,234,688	493,193,359
Star routes		21,767	20,613
Steamboat routes		210	214
Annual miles of steamboat travel		5,526,914	5,532,479
Mail messenger routes		7,542	7,600
Railroad routes		2,844	2,935
Annual miles of railroad travel		312,521,479	333,491,684
Rural free delivery routes		11,650	15,119
Electric and cable car routes		327	379
Annual travel by electric routes (miles)		7,534,759	8,585,951
Special office service, number of routes		1,788	1,441
Miles traveled annually		3,742,140	3,107,112
Letters and parcels sent to Dead-Letter Office		9,300,351	10,153,528
Pieces of stamped paper issued to postmasters		6,054,562,853	7,024,902,790
Postal cards issued to postmasters		547,204.000	770,657,950
Pieces of first-class mail matter mailed		4,611,271,580	5,033,591,267
Pieces of second-class matter mailed		2,349,671,135	2,615,685,614
Pieces of third-class matter mailed		956,911,198	1,053,637,057
Pieces of fourth-class matter mailed		84,798,683	93,380,005
Pieces mailed to foreign countries		82,794,263	91,172,745
Grand total of pieces mailed		8,085,446,859	8,887,467,048
Domestic letters and parcels registered		22,831,400	25,951,178
Total postage stamps issued		4,493,300,573	5,280,730,065
Value of postage stamps issued		$86,583,050	$101,944,938
Number of free-delivery offices		933	1.032
Number of free-delivery carriers		17,787	19,542

In the year 1790 there were 75 post offices in operation. At that time the population of the 13 States which then constituted the Union was 3,929,214, or, for convenience, stating it in round numbers, there were 3,930,000 people, served by 75 post offices, an average of 1 office to 52,400 people. Since that time the offices have been multiplied almost 1,000 times, while the population has multiplied over 20 times.

The following table shows the population, in round numbers, by decades, since 1790, the number of post offices in operation for the same years, and the average number of persons to each office:

YEAR.	Population.	Number of post offices.	Average number of persons to each office.
1790	3,930,000	75	52,400
1800	5,310,000	903	5,880
1810	7,240,000	2,300	3,148
1820	9,630,000	4,500	2,140
1830	12,870,000	8,450	1,521
1840	17,070,000	13,468	1,267
1850	23,190,000	18,417	1,259
1860	31,640,000	28.498	1,110
1870	38,560,000	28,492	1,353
1880	50,150,000	42,989	1,166
1890	62,620,000	62,401	1,003
1900	76,295,000	76,688	995
1903	81,033,000	74,169	1,092

Postal Laws of the United States.

Rules, Classes of Matter, Rates, Etc.

Classification of Matter.—For transmission in the United States, Canada, Mexico, Cuba and our island possessions, all mailable matter is divided into four great classes—first, second, third and fourth.

First-Class Matter.—This class embraces letters, postal cards, post cards and anything sealed or otherwise closed against inspection, or anything containing writing of a sort not permitted to be sent along with printed matter, as specified in class three.

Letter Rates.—Rates of letter postage to any part of the United States, Canada, Mexico, Cuba and our island possessions are two cents per ounce or fraction thereof. The same rates are charged on local or drop letters at free-delivery offices; but at offices where there is no free delivery by carriers, the rates on drop letters are one cent an ounce or fraction thereof.

Prepayment.—Prepayment of postage, or payment in advance by stamps, is invariably required. Persons should make it a rule to observe this law. But if postage on a letter be prepaid one full rate and no more, it will be forwarded and the deficiency of postage collected on delivery. If such postage be wholly unpaid, or if prepaid by less than one full rate, and deposited in the post office, the person addressed will be notified to remit the postage. If he does not remit, the letter will be sent to the Dead Letter Office, whence it will be returned to the sender if he can be located, or if his address be printed or written upon it.

Reforwarding.—Prepaid letters will be reforwarded from one post office to another on the written request of the person addressed, without additional charge of postage. The direction on a forwarded letter may be changed as often as necessary to make it reach the person addressed.

Return Letters and Weight.—Letters, but no other class of mail matter, will be returned to the sender free of postage, if a request to that effect be written or printed on the envelope. There is no limit to the weight of first-class mail matter, if the postage be fully prepaid.

Typewritten Letters. — Full letter rates are charged on typewritten letters, on all productions by the manifold process, and on all printed imitations of typewriting or manuscript, unless such reproductions are presented in numbers of not less than twenty identical and separately addressed copies at the post-office window.

Special Delivery.—A 10-cent stamp, in addition to the regular postage, entitles a letter to immediate delivery by special messenger. This kind of delivery, at carrier offices, extends to the limit of the carrier routes; but at non-carrier offices it extends to one mile from the post office. Postmasters are not required to make special delivery beyond these distances, even if the 10-cent stamp be affixed.

Postal Cards.—The postal card rate is one cent, or two cents for a double, or reply, postal card. The appearance of anything on the address side of a postal card, except the address, subjects it to letter postage. However, it is allowed that a printed address slip, not larger than 2 × $\frac{3}{4}$ inch, may be pasted on the address side. No postal card will be forwarded which contains an offensive dun, threat or indecent or scurrilous language. The offender in these respects is subject to penalty for misuse of the mails. A person's occupation, or such words as will serve to identify him, may appear as a part of the address on a postal card, but all attempts to advertise a person or his wares will subject the card to letter rates. Postal cards spoiled in printing, or otherwise, will, if not mutilated, be redeemed by the authorities at 75 per cent. of their face value.

Post Cards. — Post or private mailing cards, bearing written messages, may be sent through the domestic mails at the rate of a one-cent stamp affixed by the sender. But (1) they must conform in size, weight and quality of cardboard to those of the regular postal card. Color is immaterial, so that it admits of a plain postmark. (2) Each card must bear in plain letters upon the address side the words "Post Card." (3) The address may be in writing, print or by hand-stamp. The message may be written or printed. (4) While such cards pass through the domestic mails at one cent each, they are admitted to the mails of the Universal Postal Union only at the rate of two cents each.

Second-Class Matter. — This class includes all newspapers, periodicals or matter exclusively in print, issued regularly and at stated intervals not less frequently than four times a year, from a known office of publication or news agency, to actual subscribers or news agents. It also includes all transient newspapers and periodicals of the above character mailed by persons other than publishers. This class may also, under certain conditions, include the quarterly, or oftener, reports of societies, associations and institutions, if printed on and bound in paper. Publishers of this last class of matter wishing to avail themselves of the benefits of the law must formally apply to the department through the postmaster of the place of publication, and satisfactorily show that the organization and object of publication are within the law.

All second-class publications, except as above noted, must have legitimate subscription lists approximating 50 per cent. of the number of copies regularly issued and circulated.

Second-Class Rates.—The rates to publishers on second-class matter are one cent a pound or fractional part thereof, prepaid in currency.

Publications sent to actual subscribers in the county where published are free, unless mailed for local delivery at a letter-carrier office.

Rates of postage on transient newspapers, magazines or periodicals are one cent for each four ounces or fractional part thereof. Parts of second-class publications are rated as third-class matter.

Second-class matter is entitled to special delivery when a 10-cent special delivery stamp is affixed in addition to the regular postage.

Third-Class Matter.—This class of mail matter includes printed books, pamphlets, engravings, circulars in print, circulars by other process when at least twenty identical copies, separately addressed, are presented at the post office, and other matter wholly in print, proof-sheets, corrected proofs, and manuscript copy accompanying the same. Manuscripts unaccompanied by proof-sheets must pay letter postage.

Privileges. — The sender of third-class matter may write upon it, or upon the wrapper, envelope or tag, his name, occupation, residence and business address, preceded by the word "from." He may mark corrections in proofs or manuscripts, note typographical errors, write his name and simple dedicatory words on the fly-leaf of a book, but nothing in the nature of personal correspondence can appear in or upon matter of this class without subjecting it to first-class rates.

Rate and Weight. — The rate on third-class matter is one cent for each two ounces or fraction thereof.

The limit of weight is four pounds, except single books in separate packages, on which the weight is not limited.

Third-class matter must be fully prepaid, or it will not be forwarded. It must admit of easy inspection, otherwise it will be charged letter rates on delivery. It is entitled to special delivery stamps, to be affixed in addition to the regular postage.

Fourth-Class Matter. — Matter of the fourth class includes all mailable matter not embraced in the first three classes. All fourth-class matter must be so prepared as to be easily withdrawn from the wrapper for inspection. It embraces, in general, merchandise, samples of every kind, coin or specie.

Wrapping Requisites. — Every article of this class, such as glass, nails, etc., that is liable to injure the mails, must be first wrapped in a firm cover, and then secured in an outside tube, box or receptacle of metal or wood without sharp corners or edges, and with a sliding or screwed lid.

Liquids.—Liquids are mailable as fourth-class matter when they do not consist of ardent, vinous, spirituous or malt liquors (except samples of Communion wine), of liquids liable to explosion, spontaneous combustion or ignition by shock or jar, and of inflammable liquids, such as turpentine, naphtha, kerosene, etc. But when such liquids as are mailable are contained in glass bottles or vials, such bottles or vials must be strong enough to resist shock, must be surrounded by a packing or cushion of cotton, felt or like material to protect them and absorb the contents if broken, and must then be inclosed in a metal, wooden or papier-mache block or tube strong enough to resist the weight of other mail matter and rough handling. All such outside coverings should have closely fitting lids or covers, so as to make them water-tight. It is best to submit to the postmaster a sample of the coverings for liquids intended to be mailed, to see if the law is complied with. Mailable liquids and oils are limited in weight to four ounces per package, liquid measure.

Unmailable Matter. — Poisons, explosives, inflammable articles, live animals, insects and all substances exhaling bad odors cannot be sent through the mails. Firearms can be sent only in parts. No matter concerning lotteries or schemes to defraud is permitted to pass through the mails.

Privileges.—Senders of fourth-class mail matter may add to the address the name and address of the sender, preceded by "from," also the price, quantity, etc., for the purpose of description. So there may be added a request to the postmaster to notify the sender if the package is not delivered. A special delivery stamp of ten cents affixed in addition to the postage, entitles fourth-class matter to special delivery.

Rate and Weight. — The limit of weight of fourth-class matter (except liquids; see above) is four pounds.

The rate of postage is one cent for each ounce or fraction thereof, except seeds, bulbs, roots, cuttings, scions and plants, the rate on which is one cent for every two ounces or fraction thereof. All fourth-class matter must be fully prepaid or it will not be forwarded.

Free Mail Matter.—Though the franking privilege was abolished in 1873, by saving clauses all public documents printed by order of Congress, the "Congressional Record" and its speeches, are mailed free when franked by members of Congress, the Secretary of the Senate or Clerk of the House. Seeds sent by the Secretary of Agriculture, or by any member of Congress, when procured from the Agricultural Department, are mailable free. So are all letters and packages relating exclusively to United States Government business, when mailed by officials of the same, all publications required to be mailed to the Librarian of Congress under the copyright law, and all letters and parcels mailed to the Smithsonian Institute. But all in the last three classes must be covered with specially-printed "penalty" envelopes or labels. The Vice-President, members and delegates to Congress may frank any mail matter on official or department business, not over two ounces in weight. All communications to government officials and members of Congress must be prepaid by stamps.

Postal Registry. — All kinds of postal matter may be registered at all post offices in the United States upon the payment of eight cents for each package in addition to the regular rates of postage. Each registered package must bear the name and address of the sender, to whom a receipt will be returned from the person addressed. An indemnity for the loss of first-class registered matter will be paid, but not in excess of $25 for any one registered piece, nor in excess of the real value of the piece if less than $25.

Stamped Envelopes. — Stamped envelopes and newspaper wrappers of various denominations, sizes and colors, may be bought at first-class offices for a small advance on postage rates. Stamps cut from stamped envelopes are worthless.

Postmasters may give good stamps for stamped envelopes or wrappers spoiled in directing, if presented in whole condition and with satisfactory evidence.

Domestic Money Orders.—Domestic money orders are issued by money-order post offices for any amount up to $100, at the following rates:

For orders not exceeding $2.50	3 cents
Over $2.50 and not exceeding $5	5 "
Over 5 and not exceeding $10	8 "
Over 10 " " 20	10 "
Over 20 " " 30	12 "
Over 30 " " 40	15 "
Over 40 " " 50	18 "
Over 50 " " 60	20 "
Over 60 " " 75	25 "
Over 75 " " 100	30 "

Foreign Mails. — International mail facilities have made great progress within the last few years through the agency of the Universal Postal Union which now embraces nearly all countries. Mailing rates and conditions to countries not in the Universal Postal Union are now practically the same as those to Universal Postal Union countries. It must be remembered that, as heretofore stated, Canada, Cuba, Mexico and our insular possessions enjoy domestic postal rates, except as to a few conditions mostly relating to other than first-class matter. And let it be further noted that rates to a foreign country are the same for all the colonies of that country.

Foreign Mail Rates. — (All countries except Canada, Cuba and Mexico.)

Letters, per each half ounce (15 grams)	5 cents
Postal cards, each	2 cents
Newspapers and other printed matter, per 2 ounces	1 cent
Commercial papers (all legal, insurance, commercial manuscripts for publication, etc.), packages not over 10 ounces	5 cents
Same, packets over 10 ounces, for each 2 ounces and fraction thereof	1 cent
Merchandise samples, packets not over 4 ounces	2 cents
Same, packets over 4 ounces, for each 2 ounces or fraction thereof	1 cent
Registration stamp on letters and articles	8 cents
Limit of weight on commercial papers and printed matter	4 lb. 6 oz.

Single volumes of books to Canada, Cuba, Mexico and Salvador are not limited as to weight.

Limit of size, 18 inches in any one direction.

Commercial papers or printed matter may go in rolls of not over 30 inches in length by 4 inches in diameter.

Samples of merchandise to all Postal Union countries must not exceed 12 ounces in weight, nor 12 inches in length, by 8 in width, by 4 in depth; or if in the form of rolls, 12 inches in length by 6 in diameter.

General Regulations for Foreign Mails.—Ordinary letters for countries of the Postal Union will be forwarded whether postage is prepaid or not, but all other mailable matter must be prepaid, at least in part.

Unpaid letters received from the Postal Union are chargeable with ten cents per half-ounce on delivery, and all insufficiently prepaid correspondence is chargeable with double the amount of the insufficient postage.

Postage can be prepaid on mailable articles only by means of the postage stamps of the country in which the articles are mailed. For this reason, articles mailed from one country to another, and bearing the postage stamps of the country to which they are mailed, are treated as if they bore no stamps.

All matter mailed at less than letter rates must be so wrapped as to admit of easy inspection without destroying the wrapper, at both the office of mailing and delivery.

Newspapers and periodicals, when mailed to other than Postal Union countries, should be wrapped singly.

For card correspondence with foreign countries the United States two-cent postal card should be used, or the one-cent postal card with the addition of a one-cent stamp. Properly stamped "Post-cards" can also be used, if of proper size and consistency.

Mail matter of all kinds from Postal Union countries will be reforwarded at the request of the person to whom directed, the same as in the United States, without additional postage.

Articles excluded from domestic mails are also excluded from foreign mails.

Articles subject to duty, when entering the United States through the mails, must be submitted to the customs collector for inspection, assessment and payment of duty. The rate of duty on printed matter, except newspapers, periodicals and printed matter other than books, imported for personal use, is 25 per cent. ad valorem.

Parcels-Post. — Unsealed packages of mailable merchandise may be sent by parcels-post to most countries, under certain restrictions as to size, weight and postage.

International Money-Order Rates.—

For sum not exceeding $10	10 cents
Over $10 and not exceeding $20	20 “
Over 20 “ “ 30	30 “
Over 30 “ “ 40	40 “
Over 40 “ “ 50	50 “
Over 50 “ “ 60	60 “
Over 60 “ “ 70	70 “
Over 70 “ “ 80	80 “
Over 80 “ “ 90	90 “
Over 90 “ “ 100	$1.00

BANKING AND EQUATION TABLE.

Showing the number of days from any date in one month to same date in another month. How many days from May 6th to August 6th? Find May at the left and August at the top. Opposite May and under August is 92. In leap years add one if February is included.

From—	January	February	March	April	May	June	July	August	September	October	November	December
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Tariff Rates on Imports.

Being the Duties on Leading Articles Imported, under Provisions of the Dingly Tariff Act of 1897.

Ad val. means ad valorum. N. E. S. stand for "not elsewhere specified."

ARTICLES.	Rates of Duty.
Alcohol, amylic, or fusel oil	¼c. pr. lb.
Animals for breeding purposes	Free.
Barley, 48 lbs. to the bush	30c. pr. bush.
Beads	35 p. c. ad val.
Beef, mutton, pork	2c. pr. lb.
Beer and ale, not bottled	20c. pr. gal.
Beer and ale, bottled	40c. pr. gal.
Bindings, cotton	45 p. c. ad val.
Bindings, linen	45 p. c. ad val.
Bindings, woolen	50c. pr. lb. and 60 p. c. ad val.
Blankets	22c. pr. lb. and 30 p. c. ad val.
Blankets, value 40c. to 50c. per lb.	33c. pr. lb. and 35 p. c. ad val.
Blankets over 50c. per lb.	33c. pr. lb. and 40 p. c. ad val.
Bonnets, silk	60 p. c. ad val.
Books, charts, maps, etc.	25 p. c. ad val.
Books, over 20 yrs. old for pub. libraries	Free.
Bronze manufactures	45 p. c. ad val.
Brushes	40 p. c. ad val.
Butter, and substitutes for	6c. pr. lb.
Buttons, sleeve, collar, gilt	50 p. c. ad val.
Canvas for sails	45 p. c. ad val.
Caps, fur and leather	35 p. c. ad val.
Carpets, treble ingrain	22c. pr. sq. yd., 40 p. c. ad val.
Carpets, two-ply	18c. pr. sq. yd., 40 p. c. ad val.
Carpets, tapestry Brussels	28c. pr. sq. yd., 40 p. c. ad val.
Carpets, Wilton, Axminster, velvet	60c. pr. sq. yd., 40 p. c. ad val.
Cattle, over 1 yr. old	27 p. c. ad val.
Cheese, all kinds	6c. pr. lb.
Cigars and cigarettes	$4.50 pr. lb. and 25 p. c. ad val.
Clocks, N. E. S	40 p. c. ad val.
Clothing, ready made, cotton, N. E. S.	50 p. c. ad val.
Clothing, ready made, silk, linen	60 p. c. ad val.
Clothing, ready made, woolen	44c. pr. lb. and 60 p. c. ad val.
Coal, anthracite	Free.
Coal, bituminous	67c. pr. ton.
Coffee	Free.
Confectionery, all sug. and over 15c. a lb.	50 p. c. ad val.
Copper, manufactures of	40 p. c. ad val.
Cotton gloves	50 p. c. ad val.
Cotton handkerchiefs, hemmed	45 p. c. ad val.
Cotton handkerchiefs, hemmed stitched.	55 p. c. ad val.
Cotton hosiery, according to val. per doz.	50c. to $2 a doz., 15 p. c. ad val.

ARTICLES.	Rates of Duty.
Cotton shirts and drawers	60c. to $2.25 doz. and 15 p. c. to 50 p. c. ad val.
Cotton plushes, unbleached	9c. pr. sq. yd., 25 p. c. ad val.
Cotton webbing	40 p. c. ad val.
Cotton curtains	50 p. c. ad val.
Cutlery, over $3 per doz	20c. pr. piece and 40 p. c. ad val.
Cutlery, over $3 per doz. (razors)	$1.75 pr. doz. and 20 p. c. ad val.
Cutlery, table knives	16c. each and 15 p. c. ad val.
Cutlery, table knives over $4 per doz.	45 p. c. ad val.
Diamonds, uncut	Free.
Diamonds, cut, but not set	10 p. c. ad val.
Diamonds, cut and set	60 p. c. ad val.
Drugs, crude	Free.
Drugs, not crude	¼c. pr. lb. 10 p. c. ad val.
Dyewoods, crude	Free.
Dyewoods, extracts of	⅞c. pr. lb.
Earthenware, common	25 p. c. ad val.
Earthenware, porcelain, plain	55 p. c. ad val.
Earthenware, decorated	60 p. c. ad val.
Eggs	5c. pr. doz.
Engravings	25 p. c. ad val.
Extracts, meat	35c. pr. lb.
Fertilizers, manures, guanos	Free.
Firearms, as per value	$1.50 to $6 each, 35 p. c. ad val.
Fish, American fisheries	Free.
Fish, smoked or dried	¾c. pr. lb.
Flannels	22c. pr. lb. and 30 p. c. ad val.
Flannels, 40c. to 50c. in value	33c. pr. lb. and 35 p. c. ad val.
Flax, manufactures of, N. E. S.	45 p. c. ad val.
Flowers, artificial	50 p. c. ad val.
Fruits, preserved in own juice	1c. pr. lb. and 35 p. c. ad val.
Fruits, apples, etc.	25c. pr. bush.
Fruits, oranges, lemons, etc., N. E. S.	1c. pr. lb.
Fur, manufactures of	35 p. c. ad val.
Furniture, wooden	35 p. c. ad val.
Glassware, plain and cut	60 p. c. ad val.
Glass, polished plate, not over 16 x 24 in.	8c. pr. sq. ft.
Glass, silvered, not over 16 x 24 in.	11c. pr. sq. ft.
Glass bottles, over 1 pint	1c. pr. lb.
Gloves, according to material, price, size.	$1.75 to $4 a doz.
Glucose	1½c. pr. lb.
Glue, not over 10c. per lb	2½c. pr. lb.
Gold, manufactures of, not jewelry	45 p. c. ad val.

TARIFF RATES ON IMPORTS—(Continued.)

ARTICLES.	Rates of Duty.
Hair, curled for mattresses	10 p. c. ad val.
Hair, manufactures of, N. E. S.	35 p. c. ad val.
Hair, human, unmanufactured	20 p. c. ad val.
Hams and bacon	5c. pr. lb.
Hay	$4 pr. ton.
Hemp cordage	2c. pr. lb.
Hides, all forms	15 p. c. ad val.
Honey	20c. pr. gal.
Hoops, iron or steel, for baling	½c. pr. lb.
Hops	12c. pr. lb.
Horn, manufactures of	30 p. c. ad val.
Horses, mules, valued at $150 or less	$30 pr. head.
Horses, mules, over $150 per head	25 p. c. ad val.
India rubber, manufactures of	30 p. c. ad val.
India rubber, vulcanized	35 p. c. ad val.
Instruments, metal	45 p. c. ad val.
Iron, manufactures of, N. E. S.	45 p. c. ad val.
Iron screws, ½ inch or less	12c. pr. lb.
Iron, tinned plates	1½c. pr. lb.
Ivory, manufactures of, N. E. S.	35 p. c. ad val.
Jewelry	60 p. c. ad val.
Knit goods, wool, not over 30c. per lb.	44c. pr. lb. and 50 p. c. ad val.
Knit goods, wool, 30 to 40c. per lb.	44c. pr. lb. and 50 p. c. ad val.
Knit goods, woolen, over 40 and not over 70c. per lb.	44c. pr. lb and 50 p. c. ad val.
Knit goods, woolens over 70c. per lb.	44c. pr. lb. and 55 p. c. ad val.
Knit goods, silk	60 p. c. ad val.
Lard	2c. pr. lb.
Lead, pig, bars	2½c. pr. lb.
Lead, type metal	1½c. pr. lb.
Leather, manufactures of, N. E. S.	35 p. c. ad val.
Linen, manufactures of	45 p. c. ad val.
Linen, wearing apparel	60 p. c. ad val.
Macaroni	1½c. pr. lb.
Malt, barley	45c. pr. bush.
Matches, boxed	8c. pr. gross.
Matting, cocoa, rattan, etc.	6c. pr. sq. yd.
Molasses, N. E. S.	3c. pr. gal.
Molasses, over 56 degrees	6c. pr. gal.
Muffs, fur	35 p. c. ad val.
Musical instruments	45 p. c. ad val.
Nails, cut	6-10c. pr. lb.
Nails, horseshoe	2¼c. pr. lb.
Newspapers and magazines	Free.
Oilcloth, over 25c. per sq. yd.	8 to 20c. sq. yd., 15 to 20 p. c. ad val.
Oil, olive, in bottles	50c. pr. gal.
Oil, olive, N. E. S.	40c. pr. gal.
Oil, whale, and N. E. S.	8c. pr. gal.
Onions	40 p. c. ad val.
Opium, extracts	40 p. c. ad val.
Opium, crude	$1 pr. lb.
Paintings and statuary (marble)	20 p. c. ad val.
Paper, manufactures of, N. E. S.	35 p. c. ad val.
Paper stock, crude	Free.
Pepper, cayenne, unground	2½c. pr. lb.
Perfumery, alcoholic	60c. pr. lb. and 45 p. c. ad val.
Photograph albums	35 p. c. ad val.
Photograph slides	25 p. c. ad val.
Pickles	40 p. c. ad val.
Pins, metal	35 p. c. ad val.
Pipes, meerschaum	60 p. c. ad val.
Pipes, common clay	15c. pr. gross.
Poultry, dressed	5c. pr. lb.
Potatoes	25c. pr. bush.
Pulp, wood, for paper making	1-12c. pr. lb.
Quinine	Free.
Railroad ties, cedar	20 p. c. ad val.
Rugs, Oriental	10c. pr. sq. ft., 40 p. c. ad val.
Salmon, dried or smoked	¾c. pr. lb.
Salt, in packages	12c. pr. 100 lbs.
Salt, in bulk	8c. pr. 100 lbs.
Sauces, N. E. S.	40 p. c. ad val.
Sausages, Bologna	Free.
Sausages, all others	25 p. c. ad val.
Sealskin sacques	35 p. c. ad val.
Silk, raw	Free.
Silk in skeins	35 p. c. ad val.
Silk in skeins, value $1 per lb.	20c. pr. lb. and 15 p. c. ad val.
Silk laces	60 p. c. ad val.
Skins tanned and dressed	35 p. c. ad val.
Smokers' articles, N. E. S.	60 p. c. ad val.
Soap, Castile	1¼c. pr. lb.
Soap, violet	15c. pr. lb.
Spirits, not bay rum	$2.25 pr. pr'f gal.
Straw, manufactures of, N. E. S.	30 p. c. ad val.
Sugar, not above 16 Dutch standard	95-100c. pr. lb.
Sugar, above 16 Dutch standard	1 95-100c. pr. lb.
Tea	Free.
Tin, ore or metal	Free.
Tin plates	1½c. pr. lb.
Tobacco, unstemmed cigar wrappers	$1.85 pr. lb.
Tobacco, stemmed wrapper	$2.50 pr. lb.
Tobacco, all other stemmed leaf	50c. pr. lb.
Tobacco, all other unstemmed	35c. pr. lb.
Umbrellas, silk or alpaca	50 p. c. ad val.
Vegetables, natural, N. E. S.	25 p. c. ad val.
Velvets, silk or 75 p. c. silk	$1.50 pr. lb. and 15 p. c. ad val.
Watches and parts of	40 p. c. ad val.
Wheat, per bush. of 60 lbs.	25c. pr. bush.
Willow, for basket-making	20 p. c. ad val.
Willow, manufactures of	40 p. c. ad val.
Wines, Champagne, ½ pts. or less	$2 pr. doz.
Wines, Champagne, ½ to 1-pt. bottles	$4 pr. doz.
Wines, Champagne, 1 pt. to 1-qt. bottles	$8 pr. doz.
Wines in casks, over 14 p. c. alcohol	50c. pr. gal.
Woods, cabinet, sawed (as valued)	$1 to $2 M. ft.
Wool, first class	11c. pr. lb.
Wool, second class	12c. pr. lb.
Wool, third class, N. E. S., above 13c. lb.	7c. pr. lb.
Wool less than 12c. per lb.	4c. pr. lb.
Wool or worsted yarns not over 30c. lb.	27½c. pr. lb. and 40 p. c. ad val.
Wool or worsted yarns, over 40c. per lb.	38½c. pr. lb. and 40 p. c. ad val.
Woolen or worsted clothing	44c. pr. lb. and 60 p. c. ad val.

Comparative View of Occupations in the United States.

CLASSES OF OCCUPATIONS.	Total.	Males.	Females.
1900.	Engaged In. Number.	Number.	Number.
All occupations	29,074,117	23,754,205	5,319,912
Agricultural	10,381,765	9,404,429	977,336
Professional	1,258,739	828,163	430,576
Domestic and personal	5,580,657	3,485,208	2,095,449
Trade and transportation	4,766,964	4,263,617	503,347
Manufacturing and mechanical	7,085,992	5,772,788	1,313,204
1890.			
All occupations	22,735,661	18,821,090	3,914,571
Agricultural	8,565,926	7,887,042	678,884
Professional	944,333	632,646	311,687
Domestic and personal	4,220,812	2,553,161	1,667,651
Trade and transportation	3,326,122	3,097,701	228,421
Manufacturing and mechanical	5,678,468	4,650,540	1,027,928

AGRICULTURAL PURSUITS—PERSONS ENGAGED IN.

	Total.	Males.	Females.
Agricultural laborers	4,410,877	3,747,668	663,209
Dairying	10,875	9,983	892
Farmers and overseers	5,674,875	5,367,169	307,706
Gardeners, florists, nurserymen	61,788	58,928	2,860
Lumbermen, raftsmen	72,020	71,920	100
Stock raisers, herders, etc.	84,988	83,056	1,932
Turpentine farmers, laborers	24,737	24,456	281
Wood choppers	36,075	35,962	113
Other agricultural pursuits	5,530	5,287	243
Grand totals	10,381,765	9,404,429	977,336

PROFESSIONAL PURSUITS—PERSONS ENGAGED IN.

PROFESSION.	Total.	Males.	Females.
Actors, showmen	34,760	27,903	6,857
Architects, draughtsmen	29,524	28,483	1,041
Artists, art teachers	24,873	13,852	11,021
Clergymen	111,638	108,265	3,373
Dentists	29,644	28,858	786
Electricians	50,717	50,308	409
Engineers (civil), surveyors	43,239	43,155	84
Journalists	30,038	27,845	2,193
Lawyers	114,460	113,450	1,010
Literary and scientific	19,066	13,082	5,984
Musicians, teachers	92,174	39,815	52,359
Officials (Government)	86,607	78,488	8,119
Physicians, surgeons	132,002	124,615	7,387
Teachers, professors	446,133	118,519	327,614
Other professions	13,864	11,525	2,339
Grand totals	1,258,739	828,163	430,576

DOMESTIC AND PERSONAL PURSUITS—PERSONS ENGAGED IN.

PURSUITS.	Total.	Males.	Females.
Barbers, hairdressers	131,116	125,542	5,574
Bartenders	88,817	88,377	440
Boarding housekeepers	71,281	11,826	59,455
Hotel keepers	54,797	46,264	8,533
Housekeepers, stewards	155,153	8,224	146,929
Janitors, sextons	56,577	48,544	8,033
Laborers (not specified)	2,629,262	2,505,287	123,975
Laundry people	385,965	50,683	335,282
Nurses, midwives	120,956	12,265	108,691
Restaurant keepers	33,844	28,999	4,845
Saloon keepers	83,746	81,660	2,086
Servants and waiters	1,560,721	275,958	1,283,763
Soldiers, sailors, marines	43,235	43,235	....
Watchmen, policemen, firemen	130,590	129,711	879
All others	34,597	27,633	6,964
Grand totals	5,580,657	3,485,208	2,095,449

PERSONS OCCUPIED IN TRADE AND TRANSPORTATION.

BRANCHES.	Total.	Males.	Females.
Agents	241,162	230,606	10,556
Bankers and brokers	73,277	72,984	293
Boatmen and sailors	78,406	78,253	153
Bookkeepers	254,880	180,727	74,153
Clerks and copyists	630,127	544,881	85,246
Commercial travelers	92,919	91,973	946
Draymen, hackmen, etc.	538,933	538,029	904
Foremen, overseers	55,450	54,032	1,418
Hostlers	64,929	64,850	79
Hucksters, peddlers	76,649	73,734	2.915
Livery stable men	33,656	33,466	190
Merchants (retail)	790,886	756,802	34,084
Merchants (wholesale)	42,293	42,032	261
Messengers, office boys	71,622	64.959	6.663
Bank and company officials	74,072	72.801	1.271
Packers and shippers	59,545	39.557	19.988
Porters, helpers	54,191	53.625	566
Salespeople	611,139	461,909	149,230
Railway (steam) employés	582.150	580,462	1.688
Stenographers, typewriters	112,364	26,246	86,118
Railway (street) employés	68,919	68.873	46
Telegraph and telephone linemen	14,757	14,757	....
Telegraph and telephone operators	75,015	52,459	22,556
Undertakers	16.189	15,866	323
All others	53,434	49,734	3,700
Grand totals	4,766,964	4,263.617	503,347

PERSONS ENGAGED IN MANUFACTURING AND MECHANICAL PURSUITS.

	Total.	Males.	Females.
BUILDING TRADES.			
Carpenters and joiners	600,252	599,707	545
Masons (brick and stone)	160,805	160,638	167
Painters and glaziers	277,541	275,782	1,759
Paperhangers	21,990	21,749	241
Plasterers	35,694	35,649	45
Plumbers and fitters	97,785	97.659	126
Roofers and slaters	9,067	9,065	2
Mechanics (all others)	9,392	9.351	41
CHEMICALS AND ALLIED PRODUCTS.			
Oil well and oil works	24,626	24,573	53
Other chemical workers	14,814	12,035	2,779
CLAY, GLASS AND STONE PRODUCTS.			
Brick and tile makers	49,933	49,455	478
Glass workers	49,998	47,377	2,621
Marble and stone cutters	54,460	54,317	143
Potters	16,140	13,200	2,940

PERSONS ENGAGED IN MANUFACTURING AND MERCANTILE PURSUITS—(Continued).

	Total.	Males.	Females.
Fishing and Mining.			
Fishing and oystering	68,177	67,715	462
Miners and quarrymen	563,866	562,501	1,365
Food and Kindred Products.			
Bakers	79,188	74,860	4,328
Butchers	113,956	113,578	378
Butter and cheese makers	19,241	18,593	648
Confectioners	31,194	21,980	9,214
Millers	40,548	40,362	186
Other food preparers	28,782	23,640	5,142
Iron and Steel Products.			
Blacksmiths	226,477	226,284	193
Iron and steel workers	290,611	287,241	3,370
Machinists	283,145	282,574	571
Steam boiler makers	33,046	33,038	8
Stove and furnace makers	12,473	12,430	43
Tool and cutlery makers	28,122	27,376	746
Wheelwrights	13,505	13.495	10
Wire workers	18,487	16,701	1,786
Leather and Its Finished Products.			
Boot and shoemakers	208,912	169,393	39,519
Harness and saddle makers	40,101	39,506	595
Tanners and curriers	42,671	40,917	1,754
Trunk and leather case makers	7,051	5,472	1,579
Liquors and Beverages.			
Bottlers and soda-water makers	10,519	9,725	794
Brewers and maltsters	20,962	20,687	275
Distillers and rectifiers	3,144	3,114	30
Lumber and Its Manufactures.			
Cabinet makers	35,619	35,552	67
Coopers	37,200	37,087	113
Saw and planing millers	161,624	161,251	373
Other woodworkers	111,273	104,468	6,805
Metal Workers (not Iron or Steel).			
Clock and watchmakers	24,120	19,305	4,815
Gold and silver workers	26,112	19,732	6,380
Tin-plate and tinware makers	70,505	68,730	1,775
Brass workers	26,760	25,870	890
Other metal workers	56,602	54,282	2,320
Paper and Printing.			
Book binders	30,278	14,646	15,632
Box makers (paper)	21,098	3,796	17,302
Engravers	11,151	10,698	453
Paper and pulp millers	36,328	26,904	9.424
Printers and pressmen	155,147	139,166	15,981
Workers in Textiles.			
Bleaching and dye workers	22,278	20,493	1,785
Carpet factory hands	19,388	10,371	9,017
Cotton mill operatives	246,004	125,788	120,216
Hosiery and knitting mill operatives	47,120	12,630	34,490
Silk mill operatives	54,460	22,023	32,437
Woolen mill operatives	73,196	42,566	30,630
Other textile mill workers	104,619	53,437	51,182
Dressmakers	346,884	2,090	344,794
Hat and cap makers	22,733	15,110	7,623
Milliners	87,859	1,739	86,120
Seamstresses	150,942	4,837	146,105
Shirt, collar and cuff makers	39,432	8,491	30,941
Tailors and tailoresses	229,649	160,714	68,935
Other textile workers	29,967	8,925	21,042
Miscellaneous Industries.			
Broom and brush makers	10,220	8,643	1,577
Charcoal, coke and lime burners	14,448	14,405	43
Engineers and firemen (not locomotive)	223,495	223,318	177
Glove makers	12,271	4,503	7,768
Manufacturers and officials	243,082	239,649	3,433
Model and pattern makers	15,073	14,869	204
Photographers	26,941	23,361	3,580
Rubber factory operatives	21,866	14,492	7,374
Tobacco and cigar factory operatives	131,452	87,955	43,497
Upholsterers	30,821	28,663	2,158
Other miscellaneous industries	471,300	380,490	90,810
Grand total for persons engaged in manufacturing and mechanical pursuits	7,085.992	5.772.788	1,313,204

DIAMOND HISTORY OF THE PRESIDENTS.

	NAMES.	Paternal Ancestry.	BIRTH.	Residence.	Inaugurated.		Politics.	DIED AT.		
					Year.	Age.		PLACE.	Year.	Age.
1	George Washington	English	1732, Westmoreland Co., Va.	Virginia	1789	57	Federal	Mt. Vernon, Va.	1799	67
2	John Adams	English	1755, Quincy, Mass.	Massachus'ts	1797	62	Federal	Quincy, Mass.	1826	90
3	Thomas Jefferson	Welsh	1743, Shadwell, Va.	Virginia	1801	58	Republican	Monticello, Va.	1826	83
4	James Madison	English	1751, Port Conway, Va.	Virginia	1809	58	Republican	Montpelier, Va.	1836	85
5	James Monroe	Scotch	1758, Westmoreland Co., Va.	Virginia	1817	59	Republican	New York City	1831	73
6	John Quincy Adams	English	1767, Quincy, Mass.	Massachus'ts	1825	58	Federal	Washington, D. C.	1848	80
7	Andrew Jackson	Scotch-Irish	1767, Union Co., N. C.	Tennessee	1829	62	Democrat	Hermitage, Tenn.	1845	78
8	Martin Van Buren	Dutch	1782, Kinderhook, N. Y.	New York	1837	55	Democrat	Lindenwold, N. Y.	1862	79
9	William Henry Harrison	English	1773, Berkeley, Va.	Ohio	1841	68	Whig	Washington, D. C.	1841	68
10	John Tyler	English	1790, Greenway, Va.	Virginia	1841	51	Democrat	Richmond, Va.	1862	72
11	James K. Polk	Scotch-Irish	1795, Mecklenburg Co., N. C.	Tennessee	1845	50	Democrat	Nashville, Tenn.	1849	53
12	Zachary Taylor	English	1784, Orange Co., Va.	Louisiana	1849	65	Whig	Washington, D. C.	1850	65
13	Millard Fillmore	English	1800, Summerhill, N. Y.	New York	1850	50	Whig	Buffalo, N. Y.	1874	74
14	Franklin Pierce	English	1804, Hillsboro, N. H.	New Hamps.	1853	49	Democrat	Concord, N. H.	1869	64
15	James Buchanan	Scotch-Irish	1791, Cove Gap, Pa.	Pennsylvania	1857	66	Democrat	Wheatland, Pa.	1868	77
16	Abraham Lincoln	English	1809, Larue Co., Ky.	Illinois	1861	52	Republican	Washington, D. C.	1865	56
17	Andrew Johnson	English	1808, Raleigh, N. C.	Tennessee	1865	57	Republican	Carter's Depot, Tenn.	1875	66
18	Ulysses S. Grant	Scotch	1822, Point Pleasant, O.	Dist. of Col.	1869	47	Republican	Mt. McGregor, N. Y.	1885	63
19	Rutherford B. Hayes	Scotch	1822, Delaware, O.	Ohio	1877	54	Republican	Fremont, O.	1893	70
20	James A. Garfield	English	1831, Cuyahoga Co., O.	Ohio	1881	49	Republican	Long Branch, N. J.	1881	49
21	Chester A. Arthur	Scotch-Irish	1830, Fairfield, Vt.	New York	1881	51	Republican	New York City	1886	56
22	Grover Cleveland	English	1837, Caldwell, N. J.	New York	1885	48	Democrat	....	....	..
23	Benjamin Harrison	English	1833, North Bend, O.	Indiana	1889	55	Republican	Indianapolis, Ind.	1901	67
24	Grover Cleveland	English	1837, Caldwell, N. J.	New York	1893	56	Democrat	....	....	..
25	William McKinley	Scotch-Irish	1843, Niles, O.	Ohio	1897	54	Republican	Buffalo, N. Y.	1901	58
26	Theodore Roosevelt	Dutch	1858, New York City	New York	1901	43	Republican	....	....	..

FATHERS AND MOTHERS OF THE PRESIDENTS.

PRESIDENTS.	FATHER.	MOTHER.
Washington	Augustine Washington	Mary Ball.
John Adams	John Adams	Susanna Boylston.
Jefferson	Peter Jefferson	Jane Randolph.
Madison	James Madison	Nelly Conway.
Monroe	Spence Monroe	Eliza Jones.
John Q. Adams	John Adams	Abigail Smith.
Jackson	Andrew Jackson	Elizabeth Hutchinson.
Van Buren	Abraham Van Buren	Maria Hoes.
Harrison, W. H.	Benjamin Harrison	Elizabeth Bassett.
Tyler	John Tyler	Mary Armistead.
Polk	Samuel Polk	Jane Knox.
Taylor	Richard Taylor	Sarah Strother.
Fillmore	Nathaniel Fillmore	Phebe Millard.
Pierce	Benjamin Pierce	Anna Kendrick.
Buchanan	James Buchanan	Elizabeth Speer.
Lincoln	Thomas Lincoln	Nancy Hanks.
Johnson	Jacob Johnson	Mary McDonough.
Grant	Jesse Root Grant	Harriet Simpson.
Hayes	Rutherford Hayes	Sophia Birchard.
Garfield	Abram Garfield	Eliza Ballou.
Arthur	William Arthur	Malvina Stone.
Cleveland	Richard F. Cleveland	Anna Neal.
Harrison, B.	John S. Harrison	Elizabeth Irwin.
McKinley	William McKinley	Nancy C. Allison.
Roosevelt	Theodore Roosevelt	Martha Bulloch.

WIVES OF THE PRESIDENTS.

PRESIDENTS.	Married.	WIFE'S NAME.
Washington	1759	Martha Custis.
J. Adams	1764	Abigail Smith.
Jefferson	1772	Martha Skelton.
Madison	1794	Dolly Todd.
Monroe	1786	Eliza Kortwright.
J. Q. Adams	1797	Louisa C. Johnson.
Jackson	1794	Rachel D. Robards.
Van Buren	1807	Hannah Hoes.
Harrison	1795	Anna Symmes.
Tyler	1813	Letitia Christian.
	1844	Julia Gardiner.
Polk	1824	Sarah Childress.
Taylor	1810	Margaret Smith.
Fillmore	1826	Abigail Power.
	1858	Caroline C. McIntosh.
Pierce	1834	Jane M. Appleton.
Buchanan		
Lincoln	1842	Mary Todd.
Johnson	1827	Eliza McCardle.
Grant	1848	Julia Dent.
Hayes	1852	Lucy W. Webb.
Garfield	1858	Lucretia Rudolph.
Arthur	1859	Ellen L. Herndon.
Cleveland	1886	Frances Folsom.
B. Harrison	1853	Caroline L. Scott.
	1896	Mary S. Dimmick.
McKinley	1871	Ida Saxton.
Roosevelt	1883	Alice Lee.
	1886	Edith K. Carow.

RELIGIOUS CONNECTIONS OF THE PRESIDENTS.

Washington	Episcopalian.
John Adams	Congregationalist.
Jefferson	Liberal.
Madison	Episcopalian.
Monroe	Episcopalian.
J. Q. Adams	Congregationalist.
Jackson	Presbyterian.
Van Buren	Reformed Dutch.
Harrison	Episcopalian.
Tyler	Episcopalian.
Polk	Presbyterian.
Taylor	Episcopalian.
Fillmore	Unitarian.
Pierce	Episcopalian.
Buchanan	Presbyterian.
Lincoln	Methodist.
Johnson	Of Methodist Turn.
Grant	Methodist.
Hayes	Methodist.
Garfield	Church of Christ.
Arthur	Episcopalian.
Cleveland	Presbyterian.
B. Harrison	Presbyterian.
McKinley	Methodist.
Roosevelt	Reformed Dutch.

POPULATION OF THE UNITED STATES ACCORDING TO SEX—1900 CENSUS.

STATES AND TERRITORIES.	Males.	Females.	STATES AND TERRITORIES.	Males.	Females.
Alabama	916,764	911,933	Nebraska	564,592	501,708
Alaska	45,872	17,720	Nevada	25,603	16,732
Arizona	71,795	51,136	New Hampshire	205,379	206,209
Arkansas	675,312	636,252	New Jersey	941,760	941,909
California	820,531	664,522	New Mexico	104,228	91,082
Colorado	295,332	244,368	New York	3,614,780	3,654,114
Connecticut	454,294	454,126	North Carolina	938,677	955,133
Delaware	94,158	90,577	North Dakota	177,493	141,653
District of Columbia	132,004	146,714	Ohio	2,102,655	2,054,890
Florida	275,246	253,296	Oklahoma	214,359	183,972
Georgia	1,103,201	1,113,130	Oregon	282,985	180,551
Hawaii	106,369	47,632	Pennsylvania	3,204,541	3,097,574
Idaho	93,367	68,405	Rhode Island	210,516	218,040
Illinois	2,472,782	2,348,768	South Carolina	664,895	675,421
Indiana	1,285,404	1,231,058	South Dakota	216,164	185,406
Indian Territory	208,952	183,108	Tennessee	1,021,224	999,392
Iowa	1,156,849	1,075,004	Texas	1,578,900	1,469,810
Kansas	768,716	701,779	Utah	141,687	135,062
Kentucky	1,090,227	1,056,947	Vermont	175,138	168,503
Louisiana	694,733	686,892	Virginia	925,897	928,287
Maine	350,995	343,471	Washington	304,178	213,925
Maryland	589,275	598,769	West Virginia	499,242	459,558
Massachusetts	1,367,474	1,437,872	Wisconsin	1,067,562	1,001,480
Michigan	1,248,905	1,172,077	Wyoming	58,184	34,347
Minnesota	932,490	818,904			
Mississippi	781,451	769,819	Totals	39,059,242	37,244,145
Missouri	1,595,710	1,510,955			
Montana	149,842	93,487			

NAVIGABLE LENGTH OF THE MISSISSIPPI AND TRIBUTARIES.

MISSISSIPPI PROPER, FOR LARGE STEAMERS 2,161 MILES; SMALL STEAMERS 2,811 MILES.

TRIBUTARIES.	Miles.	TRIBUTARIES.	Miles.	TRIBUTARIES.	Miles.
Missouri	2,900	Atchafalaya	218	Iowa	80
Red	986	Green	200	Big Hatchie	75
Ohio	950	St. Francis	180	Rock	64
Arkansas	884	Tallahatchie	175	Black	61
White	779	Lafourche	168	Macon	60
Cumberland	600	Issaquena	161	Bœuf	55
Yellowstone	474	Wisconsin	160	Cane	54
Ouchita	384	Black	147	Big Horn	50
Wabash	365	Tensas	112	Clinch	50
Illinois	350	Monongahela	110	D'Arbonne	50
Allegheny	325	Kentucky	105	Little White	48
Osage	302	Bartholomew	100	Cypress	44
Minnesota	295	Muskingum	94	Big Black	35
Sunflower	271	Kanawha	94	Ten others, about	300
Tennessee	270	Teche	91		
Yazoo	228	Chippewa	90	Grand total	16,405

NATIONAL CEMETERIES.

Alexandria, Va.
Alexandria, La.
Andersonville, Ga.
Annapolis, Md.
Antietam, Md.
Arlington, Va.

Barrancas, Fla.
Baton Rouge, La.
Beaufort, S. C.
Beverly, N. J.
Brownsville, Tex.

Camp Butler, Ill.
Camp Nelson, Ky.
Cave Hill, Ky.
Chalmette, La.
Chattanooga, Tenn.
City Point, Va.
Cold Harbor, Va.
Corinth, Miss.
Crown Hill, Ind.
Culpeper, Va.
Cypress Hills, N. Y.

Danville, Va.
District of Columbia.
Donaldson, Tenn.

Fayetteville, Ark.
Finn's Point, N. J.
Florence, S. C.
Fort Gibson, Ind. Ter.
Fort Harrison, Va.
Fort Leavenworth, Kan.
Fort MacPherson, Neb.
Fort Scott, Kan.
Fort Smith, Ark.
Fredericksburg, Va.

Gettysburg, Pa.
Glendale, Va.
Grafton, W. Va.

Hampton, Va.

Jefferson Barracks, Mo.
Jefferson City, Mo.

Knoxville, Tenn.

Lebanon, Ky.
Lexington, Ky.
Little Rock, Ark.
Logan's Cross Roads, Md.
Loudon Park, Md.

Marietta, Ga.
Memphis, Tenn.
Mound City, Ill.

Nashville, Tenn.
Natchez, Miss.
New Albany, Ind.

Philadelphia, Pa.
Pittsburg Landing, Tenn.
Poplar Grove, Va.
Port Hudson, La.

San Antonio, Tex.
Seven Pines, Va.
Staunton, Va.
Springfield, Mo.
Stone River, Tenn.

Vicksburg, Miss.

Winchester, Va.

Yorktown, Va.

FOREST RESERVATIONS, UNDER ACT MARCH 3, 1891.

STATE OR TERRITORY.	Name of Reserve.	Date of President's Creative Proclamation.	Estimated Acreage.
Alaska	Afognak Forest and Fish Culture reserve (reserved under sections 24 and 14, act March 3, 1891)	Dec. 24, 1892	403,640
Arizona	Grand Canyon Forest reserve	Feb. 20, 1893	1,851,520
	The San Francisco Mountains Forest reserves (even sections only)	Aug. 17, 1898	975,360
	The Black Mesa Forest reserve	Aug. 17, 1898	1,658,880
	The Prescott Forest reserve	May 10, 1898 Oct. 21, 1899	423,680
California	San Gabriel Timber Land reserve	Dec. 20, 1892	555,520
	Sierra Forest reserve	Feb. 14, 1893	4,096,000
	San Bernardino Forest reserve	Feb. 25, 1893	737,280
	The Trabuco Canyon Forest reserve	Feb. 25, 1893 Jan. 30, 1899	109,920
	The Stanislaus Forest reserve	Feb. 22, 1897	691,200
	The San Jacinto Forest reserve	Feb. 22, 1897	737,280
	The Pine Mountain and Zaca Lake Forest reserve	Mar. 2, 1898 June 29, 1898	1,644,594
	The Lake Tahoe Forest reserve	April 13, 1899	136,335
	The Santa Ynez Forest reserve	Oct. 2, 1899	145,000
Colorado	White River Plateau Timber Land reserve	Oct. 16, 1891	1,198,080
	Pike's Peak Timber Land reserve	Feb. 11, 1892 Mar. 18, 1892	184,320
	Plum Creek Timber Land reserve	June 23, 1892	179,200
	The South Platte Forest reserve	Dec. 9, 1892	683,520
	Battlement Mesa Forest reserve	Dec. 24, 1892	858,240
Idaho and Montana	The Bitter Root Forest reserve	Feb. 22, 1897	4,147,200
Idaho and Washington	The Priest River Forest reserve	Feb. 22, 1897	645,120
Montana	The Flathead Forest reserve	Feb. 22, 1897	1,382,400
	The Lewis and Clarke Forest reserve	Feb. 22, 1897	2,926,080
	The Gallatin Forest reserves (even sections only)	Feb. 10, 1899	40,320
New Mexico	The Pecos River Forest reserve	Jan. 11, 1892 May 27, 1898	431,040
	The Gila River Forest reserve	Mar. 2, 1899	2,327,040
Oklahoma	Wichita Forest reserve	July 4, 1901	57,120
Oregon	Bull Run Timber Land reserve	June 17, 1892	142,080
	The Cascade Range Forest reserve	Sept. 28, 1893 July 1, 1901	4,588,800
	Ashland Forest reserve	Sept. 28, 1893	18,560
So. Dakota and Wyoming	The Black Hills Forest reserve	Feb. 22, 1897 Sept. 19, 1898	1,211,680
Utah	The Uintah Forest reserve	Feb. 22, 1897	875,520
	The Fish Lake Forest reserve	Feb. 10, 1899	67,840
	The Payson Forest reserve	Aug. 3, 1901	86,400
Washington	The Washington Forest reserve	Feb. 22, 1897 April 3, 1901	3,426,400
	The Olympia Forest reserve	Feb. 22, 1897 April 7, 1900 July 15, 1901	1,466,880
	The Mount Rainier Forest reserve (area reduced March 2, 1899, by act of Congress creating the Mount Rainier National park; 30 Stat., 993)	Feb. 22, 1897	2,027,520
Wyoming	Yellowstone Park Timber Land reserve	Mar. 30, 1891 Sept. 10, 1891	1,239,040
	The Big Horn Forest reserve	Feb. 22, 1897 June 29, 1900	1,147,840
	The Teton Forest reserve	Feb. 22, 1897	829,440
	The Crow Creek Forest reserve	Oct. 10, 1900	56,320

REVOLUTIONARY STALWARTS.

On August 10, 1778, the American officers at West Point were weighed. The stalwarts tipped the beam as follows:

	Pounds.		Pounds.
Gen. Washington	209	Col. Michael Jackson	252
Gen. Lincoln	224	Col. Henry Jackson	238
Gen. Knox	280	Lieut.-Col. Huntingdon	212
Gen. Huntingdon	182	Lieut.-Col. Cobb	182
Gen. Greaton	166	Lieut.-Col. Humphreys	221
Col. Swift	319		

Average weight, 225 10-11 pounds.

QUANTITY OF SEED REQUIRED TO PLANT AN ACRE.

KIND OF SEED.	Quantity.
Asparagus, in 12 inch drills	10 quarts.
Asparagus Plants, 4 by 1½ feet	8,000.
Barley	2½ bushels.
Beans, bush, in drills 2½ feet	1½ bushels.
Beans, pole, Lima, 4 by 4 feet	20 qts.
Beans, Carolina, prolific, etc., 4 by 3 feet	10 quarts.
Beets and mangold, drills, 2½ feet	9 pounds.
Broom corn, in drills	12 pounds.
Cabbage, outside, for transplanting	12 ounces.
Cabbage, sown in frames	4 ounces.
Carrot, in drills, 2½ feet	4 pounds.
Celery, seed	8 ounces.
Celery, plant 4 by ½ feet	25,000.
Clover, white Dutch	13 pounds.
Clover, Lucerne	10 pounds.
Clover, Alsike	6 pounds.
Clover, large red with timothy	12 pounds.
Clover, large red without timothy	16 pounds.
Corn, sugar	10 quarts.
Corn, field	8 quarts.
Corn, salad, drill 10 inches	25 pounds.
Cucumber, in hills	3 quarts.
Flax, broadcast	20 quarts.
Grass, timothy with clover	6 quarts.
Grass, timothy without clover	10 quarts.
Grass, orchard	25 quarts.
Grass, red top or heads	20 quarts.
Grass, blue	28 quarts.
Grass, rye	20 quarts.
Lettuce, in rows 2½ feet	3 pounds.
Lawn grass	35 pounds.
Melons, water, in hills 8 by 8 feet	3 pounds.
Melons, citrons, 4 by 4 feet	2 pounds.
Oats	2 bushels.
Onions, in beds for sets	50 pounds.
Onions, in rows for large bulbs	7 pounds.
Parsnip, in drills 2½ feet	5 pounds.
Pepper, plants, 2½ by 1 foot	17,500.
Pumpkin, in hills 8 by 8 feet	2 quarts.
Parsley, in drills 2 feet	4 pounds.
Peas, in drills, short varieties	2 bushels.
Peas, in drills, tall varieties	1 to 1½ bush.
Peas, broadcast	3 bushels.
Potatoes	8 bushels.
Radish, in drills 2 feet	10 pounds.
Rye, broadcast	1¾ bushels.
Rye, drilled	1½ bushels.
Squash, bush, in hills, 4 by 4 feet	3 pounds.
Turnips, in drills 2 feet	3 pounds.
Turnips, broadcast	3 pounds.
Tomatoes, in frames	3 ounces.
Tomatoes, seed, in hills 3 by 3 feet	8 ounces.
Tomatoes, plants	3.800.
Wheat, in drills	1¼ bushels.
Wheat, broadcast	2 bushels.

WORTH OF YOUR WEIGHT IN GOLD OR SILVER.

WEIGHT.	Gold.	Silver.
90 pounds	$22,500	$1,440
91 "	22,750	1,456
92 "	23,000	1,472
93 "	23,250	1,488
94 "	23,500	1,504
95 "	23,750	1,520
96 "	24,000	1,536
97 "	24,250	1,552
98 "	24,500	1,560
99 "	24,750	1,584
100 "	25,000	1,600
105 "	26,250	1,680
110 "	27,500	1,760
115 "	28,750	1,840
120 "	30,000	1,920
125 "	31,250	2,000
130 "	32,500	2,080
135 "	33,750	2,160
140 "	35,000	2,240
145 "	36,250	2,320
150 "	37,500	2,400
155 pounds	$38,750	$2,480
160 "	40,000	2,560
165 "	41,250	2.640
170 "	42,500	2,720
175 "	43,750	2,800
180 "	45,000	2,880
185 "	46,250	2,960
190 "	47,900	3,040
195 "	48,750	3,120
200 "	50,000	3,200
205 "	51,250	3,280
210 "	52,500	3,360
215 "	53,750	3,440
220 "	55,000	3,520
225 "	56,250	3,600
230 "	57,500	3,680
235 "	58,750	3,760
240 "	60,000	3,840
245 "	61,250	3,920
250 "	62,500	4,000

STRENGTH AND DISTRIBUTION OF U. S. ARMY.

[*Report of Secretary of War.*]

	Officers.	Men.
In the Philippines	964	16,884
In Cuba	31	801
In Porto Rico	40	791
In the Hawaiian Islands	11	213
In China	5	146
In the United States	2,077	37,778
En route, in camp, recruits, etc.	700	3,825
Total	3,828	60,438

OUR NATIONAL WEALTH AT A GLANCE.

Kinds of Property.	Value.
Valuation of Real and Personal property	$94,300,000,000
Circulation of Money	2,055,150,998
Yearly Bank Clearings	84,582,450,081
Farm property value	20,514,001,838
Value of Manufactures	13,039,279,566
Value of Farm Animals	2,981,054,115
Railroads, Cost of	10,484,430,907

Cleanliness, Sanitation and Home Management.

To Purify Sinks and Drains.—To one pound of common copperas add one gallon of boiling water, and use when dissolved. The copperas is deadly poison, and should always be carefully labeled if kept on hand. This is one of the best possible cleansers of pipes and drains.

To Wash Greasy Tin and Iron.—Pour a few drops of ammonia into every greasy roasting-pan, after half filling the pan with warm water. A bottle of ammonia should always be kept on hand near the sink for such uses; never allow the pans to stand and dry, for it doubles the labor of washing, but pour in water and use the ammonia, and the work is half done.

To Clean Carpets.—Shake and beat the carpets well; lay them upon the floor and tack them firmly; then with a clean flannel wash them over with one quart of bullock's gall mixed with three quarts of soft, cold water, and rub it off with a clean flannel or house-cloth. Any particularly dirty spot should be rubbed with pure gall. Carpets cleansed in this way look bright and fresh.

Treatment of Oilcloth.—Oilcloth ought never to be wet, but merely rubbed with flannel and polished with a brush of moderate hardness, exactly like a mahogany table; and by this means the fading of the colors and the rotting of the canvas are entirely avoided.

To Remove Iron Stains from Marble.—Wet the spots with oil of vitriol, or oxalic acid diluted in alcohol, or with lemon juice, and after a quarter of an hour, rub them dry with a soft linen cloth.

To Clean Marble.—Use three ounces of pearl ash, one pound of whiting and three pints of water well mixed together and boil for ten minutes; rub it well over the marble and let it remain twenty-four hours, then rub it off and dry it with a clean cloth.

To Clean Woodwork.—Where painted wainscot or other woodwork requires cleaning, fuller's earth will be found cheap and useful, and on wood not painted it forms an excellent substitute for soap. Where extreme nicety is required, use a mixture of one pound of soft soap, two ounces of pearl ash, one pint of lard and one pint of table beer; simmer these substances in a pipkin over a slow fire and let them be well mixed. The mode of application is to put a small quantity in flannel; rub it on the wainscot, wash it off with warm water and dry thoroughly with a linen cloth. This will clean painted woodwork without removing the paint.

To Clean Gilt Frames.—When the gilt frames of pictures or looking-glasses, or the gilt mouldings of rooms have specks of dirt upon them, from flies or other causes, they can be cleaned with the white of an egg gently rubbed on with a camel's-hair pencil.

To Clean Picture Frames.—Black walnut frames will become dull and rusty looking. They may be renewed by first brushing thoroughly with a stiff brush to remove dust and then applying pure linseed oil with a proper brush, or with a piece of new bleached muslin.

To Remove Moths from Furniture.—Moths may be exterminated or driven from upholstered work by sprinkling it with benzine. The benzine is put in a small watering-pot, such as is used for sprinkling house-plants; it does not spot the most delicate silk, and the unpleasant odor passes off in an hour or two in the air. Care must be used not to carry on this work near a fire or flame, as the vapor of benzine is very inflammable. It is said that a little spirits of turpentine added to the water with which floors are washed will prevent the ravages of moths.

Perfume and a Preventive Against Moths.—Take one ounce of Tonquin beans, caraway seed, cloves, mace, nutmeg, cinnamon, well ground; add six ounces of Florentine orris root; mix well and put in bags among your clothes.

To Blacken Hearths.—Mix black lead and whites of eggs, well beaten together; with a painter's brush wet the hearth thoroughly all over; then rub it bright with a hard brush.

To Remove Fly Spots.—Dip a camel's-hair brush into spirits of wine and apply it to remove fly spots.

Mucilage.—An excellent mucilage may be made by taking one ounce of gum tragacanth, as much corrosive sublimate as will lay on a silver five-cent piece; put it into a jar and pour over it one quart of cold, soft water; let it stand twenty-four hours; then stir, and it is ready for use, and it will keep as long a time as is desired.

Liquid Glue.—Dissolve 33 parts of best glue, in a steam bath, in 36 part of water; then add gradually, stirring constantly, 3 parts of nitric acid, or enough to prevent hardening when cool.

How to Keep Meat.—Meat is much better for family use when at least one week old, in cold weather. Hang up a quarter of meat with the cut end up, the reverse of the usual way, and the juice will remain in the meat and not run to the cut and dry up by evaporation.

To Restore and Preserve Flowers.—Faded flowers may be generally more or less restored by immersing them half way up their stems in very hot water and allowing them to remain in it until it cools, or they have recovered. The scalded portion of the stem must then be cut off and the flowers placed in clear, cold water. In this way a great number of faded flowers may be restored; but there are some of the more fugacious kinds on which it proves useless. Flowers may also be preserved and their tints deepened by adding to the water a little solution of carbonate of ammonium and a few drops of phosphate of sodium. The effect of this in giving the flowers a deeper color and a stronger appearance is quite wonderful; and, by cutting off every other day about half an inch of the stems of the flowers with a sharp knife, they may be kept as long as their natural life would last in the fields or woods. If a spoonful of charcoal powder be added to the water, the flowers will last as long as they would on the plant without any need of changing the water.

To Clean Mica.—Take a little vinegar and water and apply with a soft cloth. The acid removes the stains, and if well done and wiped dry will look as good as new. If the stove is hot, tie the cloth to a stick.

Silver Polish.—Cream of tartar, two ounces; prepared chalk, two ounces; pulverized alum, one ounce. Water sufficient to make a paste. Apply with soft cloth, allow to dry and polish with flannel.

Flannels.—Flannel should always be washed with white soap, and in warm, but not boiling, water.

Damp Closets.—For a damp closet or cupboard, which is liable to cause mildew, place in it a saucerful of quicklime and it will not only absorb all apparent dampness, but sweeten and disinfect the space. Renew the lime once a fortnight; if the place be very damp, renew it as often as it becomes slaked. Lime may be used in the same way for water-closets and out-buildings.

Damp Walls.—Line the damp part of the wall with sheet lead, rolled very thin, and fastened up with small copper nails; it may be immediately covered with paper, and so hidden from view. The lead is not to be thicker than that which lines tea chests.

Whitewash for Rooms.—Take four pounds of whiting and two ounces of common glue; let the glue stand in cold water over night, then heat it until dissolved and pour it hot into the whiting mixed with cold water. This makes a nice, smooth whitewash.

Whitewash that will not Rub Off.—Mix up half a pailful of lime and water ready to put on the wall; then take one-fourth pint of flour, mix it with water, then pour on it a sufficient quantity of boiling water to thicken it and pour it while hot into the whitewash; stir all well together and use.

Painting and Papering.—Painting and papering are best done in cold weather, especially the former, for the wood absorbs the oil of paint much more in warm weather, while in cold weather the oil hardens on the outside, making a coat which will protect the wood instead of soaking into it.

Lamp Chimneys.—To prevent cracking, put them into a kettle of cold water, gradually heating to the boiling point, and then let them as gradually cool.

Roach Exterminator.—Borax is one of the best exterminators. It should be pulverized and sprinkled around the infested places. Red lead made into a paste with flour and brown sugar and spread on small pieces of card distributed at night about infested places is also said to be good.

To Remove Old Putty.—Old putty, it is said, can be removed without injury to the sash or glass by passing a hot soldering iron over it. The heat of the iron softens it rapidly.

Testing Butter.—Melt some suspected butter; soak a wick in it; when cold, light it like a candle and then blow it out. If oleomargarine it will smell like a blown-out candle, if it is butter it will smell like butter.

To Remove a Tight Ring.—Envelop the finger in a length of flat rubber braid, beginning at the tip of the finger and laying it on closely and tightly, so as to exert its elastic force gradually and gently upon the tissues. When the binding is completed, the hand should be held up and in a few minutes the swelling will be perceptibly diminished. The braid is then taken off and immediately reapplied in the same manner, when, after another five minutes, the finger, if again rapidly uncovered, will be small enough for the ring to be removed with ease.

For Cleaning and Polishing Furniture, Hard Wood, Leather, Etc.—One-third pure lard oil, two-thirds benzine. Mix. Rub with woolen cloth.

To Remove Iron Rust from White Goods.—Try salts of lemon. Buy it from your druggist and keep it out of the children's way. Wet the stains, rub in the salts of lemon and lay goods in the hot sun. If the first application does not entirely remove the iron mould, renew it, always leaving in the sunlight for some time.

Toilet Rules and Suggestions.

To Clean Hair Brushes.—Dissolve a piece of soda in some hot water, allowing a piece the size of a walnut to a quart of water; put the water into a basin, and, after combing out the hair from the brushes, dip them, bristles downward, into the water and out again, keeping the backs and handles as free from water as possible. Repeat this until the bristles look clean; then rinse the brushes in a little cold water; shake them well, and wipe the handles and backs with a towel, *but not the bristles,* and set the brushes to dry in the sun, or near the fire. Wiping the bristles of a brush makes them soft, as does also the use of soap.

To Clean Combs.—If it can be avoided, never wash combs, as the water often makes the teeth split, and the horn, if wet, often becomes rough. A small brush can be bought, made purposely for cleaning combs; with this the comb should be well brushed and afterward wiped with a cloth.

Bandoline.—Soak starch or Irish moss (whichever is handy) in rose water until dissolved and smooth; if you wish it to be pink, color it with a little pounded cochineal.

Oil of Roses for the Hair.—Attar of roses one drachm, oil of rosemary one drachm, olive oil one quart, mixed together. It may be colored red by steeping a little alkanet root in the oil (with heat) before scenting it.

Milk of Roses.—Put into a small bottle two ounces of rose water, one teaspoonful of oil of sweet almonds, ten drops of oil of tar. Shake the bottle until the whole is combined; it makes a nice and perfect harmless cosmetic to apply to the skin after washing.

Marrow Pomade for the Hair.—Marrow a quarter pound, lard a quarter pound, Castor oil six ounces, salad oil six ounces, palm oil half ounce, scent with oil of bergamot; melt the lard and palm oil together, then strain it, and strain the marrow; mix all well together, until nearly cold and put in pots.

Perfume for Linen.—Lavender flowers half pound (free from stalk), dried thyme and mint, of each, half ounce, ground cloves and caraway, of each, a quarter ounce, common salt dried one ounce; mix well together and put into cambric or silk bags.

Chapped Hands.—Unsalted lard a quarter pound, yolks of two new-laid eggs, rose water to mix well; add a large spoonful of honey and enough of fine oatmeal or almond flour to work it into a paste.

Chapped Lips.—Borax, benjamin and spermaceti, of each, a quarter ounce, a pinch of alkanet root, a large juicy apple chopped, a bunch of black grapes bruised, a quarter pound of unsalted butter, two ounces of beeswax; put all into a new tin saucepan; simmer gently till the wax, etc., are dissolved, and then strain it through a linen; when cold, melt it again and pour it into small pots or boxes; or, if to make in form of cakes, use the bottom of teacups.

Excessive Sweating of the Hands or Feet.—A useful prescription for excessive sweating of the hands and feet is: Carbolic acid 1 part, burnt alum 4 parts, starch 200 parts, French chalk 50 parts, oil of lemon 2 parts; sprinkle on feet, or inside of stockings or gloves, etc.

Chilblains.—Wash the chilblains with tincture of myrrh diluted in a little water.

Burns.—Lime water beaten up with sweet oil is an excellent ointment for painful burns.

Sprains.—Sal ammoniac half an ounce, rose water half pint, cologne water a tablespoonful. Rags wet with the lotion should be laid on the injured part and changed when they get dry.

Sunburn.—This may occur in grade from a slight reddening of the face to an inflammation attended with blistering. Soothing applications and avoiding the cause are the indications. Oxide of zinc ointment, cosmoline and zinc ointment, in equal parts, or dusting powders of starch or rice flour, are useful. A solution of subnitrate of bismuth, or bicarbonate of soda, has some value for removing freckles. Powdered nitre, moistened with water and applied to the face night and morning, has also been recommended for removing freckles.

To Remove Blackheads.—Use hot water, a pure vegetable oil soap and a rough wash-cloth faithfully and vigorously at least twice a day. The friction will also help rid you of the enlarged pores. The following ointment applied directly after washing the face is excellent for softening the obnoxious little "flesh worms." Allow it to remain on all night or at least three or four hours, and then scrub off the soap and warm water: Ergotine six grams, oxide of zinc fourteen grams, vaseline sixty grams.

For Obstinate Cases of Blackheads.—For very obstinate cases of blackheads anoint the face with tincture of green soap after washing it with hot water. Let the soap remain on for a few minutes, then rinse it off with warm water. A few weeks' treatment will soften the skin so that all of the blackheads, which have not already succumbed to the action of the soap and water, can be easily pressed out with the fingers. The green soap may make the face very tender. In that case apply some soothing cream or lotion directly after using it. The following is excellent: Rose water two ounces, almond oil two ounces, white wax one-half ounce, spermaceti one-half ounce.

To Remove Freckles.—Try the following: Bichloride of mercury two grams, sulphate of zinc four grams, spirits of camphor five grams, distilled water one hundred and fifty grams. Dilute with three parts of water and apply to the spots with a piece of soft linen at night. Lable the bottle plainly with red ink, as bichloride of mercury is a poison and should be handled discreetly. It will not, however, injure your face in the least when used as here directed.

For Pimples on the Face.—Camphor ten grains, acacia (pulverized) twenty grains, sulphur (precipitated) two drachms, lime water two ounces, rose water two ounces. Apply to the face with a soft cloth at bed-time. Allow to dry and brush off the excess of powder.

For Chapped Hands and Face.—Compound tincture of benzoin ten drops, alcohol two drachms, rose water one-half drachm, glycerine one ounce. Apply to chapped surfaces at night after they have been washed with soap and warm water and thoroughly dried.

Composition of Various Foods.

Cow's Milk.—In 100 parts—Water, 86.8; albuminoids, 4; fats, 3.7 to 4.50; sugar, 4.8; salts, 0.7.

Butter.—In 100 parts—Fats, 88; albuminoids, 3.3; water, 6; salts (variable), 2.7.

Cheese.—In 100 parts—Fats, 24.3; albuminoids, 33.5; water, 36.8; salts, 5.4.

White Wheaten Bread.—In 100 parts—Carbohydrates, 50.2; albuminoids (nitrogenized matters), 7.5; salts, 1.6; fats, 1.5; water, 39.2.

Oatmeal.—In 100 parts—Water, 15; albuminoids, 12.6; fats, 5.6; carbohydrates, 63; salts, 3.

Rice.—In 100 parts—Water, 10; albuminoids, 5; fats, 0.8; carbohydrates, 83.2; salts, 0.5.

Maize, Indian Corn.—In 100 parts—Water, 13.5; albuminoids, 10; fats, 6.7; carbohydrates, 64.5; salts, 1.4.

Peas.—In 100 parts—Water, 15; albuminoids, 22; fats, 2; carbohydrates, 53; salts, 2.4.

Potato.—In 100 parts—Water, 74; albuminoids, 2; fats, 0.16; carbohydrates, 21; salts, 1.

Eggs.—Ten per cent of weight deducted for shell—Water, 73.5; albuminoids, 13.5; fats, 11.6; salts, 1.4.

Eggs, Yolk.—Water, 53.5; albuminoids, 15; fats 30; salts, 1.5.

Eggs, White.—Water, 82.2; albuminoids, 13.5; fats, 3; salts, 1.3.

Beef.—Little fat; best quality—Water, 74.4; fats, 3.5; albuminoids, 20.5; salts, 1.6.

Beef.—Roast or boiled, with drippings—Water, 54; fats, 15.45; albuminoids, 27.6; salts, 2.95.

Pork, Salt.—Water, 44.1; fats, 7; albuminoids, 26.1; salts, 22.8.

Smoked Ham.—Water, 27.8; fats, 36.5; albuminoids, 24; salts, 10.1. (*Konig.*)

Poultry.—Water, 74; fats, 38; albuminoids, 21; salts, 1.2. (*Letheby.*)

Chicago Corned Beef.—Water, 52.2; fats, 14; albuminoids, 23.3; salts, 4.

The Effects of Cooking Upon Foods.

What Good Cooking Does.—What purposes are fulfilled, it may be asked, by cooking? Our food is rendered more pleasing to the eye, agreeable to the palate and digestible by the stomach. Cooking lessens cohesion, coagulates the albumen of meats, solidifies the fibrine, gelatinizes fibrous and connective tissues; it softens the consistence of vegetables, and so enables them to be more readily masticated, loosens their intercellular structure and thus facilitates the penetration of digestive juices into their substances, and it causes the starch granule to swell and burst, allowing the digestive fluids to come in contact with the central part.

Cooking Imparts Warmth.—Then the warmth imparted to food by the process of cooking aids the digestive action of the stomach, and also exerts a reviving effect upon the system when it is fatigued, or has been exposed to cold. The modes of cooking in common use are: Boiling, roasting, broiling, baking, frying and stewing.

Boiling.

Preparing Meats for Boiling.—If the object to be attained is the extraction of the virtue of meat into the surrounding liquids, as in making broths and soups, the article should be cut up finely and placed in cold water. After soaking for a short time heat should be applied and the temperature slowly raised. Thus treated, the principles of the meat pass out into the surrounding liquid, and as this gains in flavor and nutritive properties the meat becomes impoverished.

Retaining Meat Flavors.—If it is desired to retain the flavor and nutritive properties of the meat an opposite process must be adopted by plunging the meat suddenly into boiling water and briskly maintaining the boiling process for a few moments. This coagulates the albuminous matter upon the surface and forms an almost impermeable external layer which keeps the juices from escaping from the substance of the meat.

When to Stop Boiling.—After this the boiling should not be continued, a temperature of about 165 degrees Fahrenheit being all that is required, and this should be continued until the cooking is done. This will give a juicy and tender central meat, possessing all the properties of nutritiveness and digestibility. The usual fault committed in boiling meat is in keeping up too high a temperature by which the muscular tissue is made to shrink and become hard and indigestible.

Boiling Fish.—Fish is rendered firm in proportion to the hardness of the water in which it is boiled; hence by boiling it in sea-water or salt-water its flesh is firmer and more highly flavored.

How to Boil Potatoes.—Potatoes should be boiled in their skins to retain their soluble constituents. This object is still further attained by adding a little salt to the water. By steaming, the object is still further secured.

Objection to Boiled Foods.—One objection to boiled food is that it is more insipid than food cooked in other ways. This loss of flavor makes it less tempting to the palate, but it sits more easily on a delicate stomach.

In boiling use cold water for: (1) All kinds of salt meat, salt fish, some fresh fish and root vegetables, except very young potatoes; (2) Such green vegetables as artichokes, cabbage, beans, peas, asparagus, sea-kale and broccoli.

In boiling use boiling water for: (1) Almost all green vegetables. (See exceptions above); (2) Shell-fish, herrings, soles, skate, mackerel and all crimped fish; (3) All kinds of puddings, whether of paste, batter or rice, except plain boiled rice.

Boiling Rules.—1. When meat is boiled enough it looks plump and shrinks away from the bone.

2. When vegetables are done enough they sink to the bottom of the water.

3. When fish is done the eye-balls fall out, and the fins are easy to pull away.

Time Required for Boiling.—(Much depends upon the freshness and age of the articles.)

For each pound of corned beef, 30 minutes; for each pound of beef, 15 to 30 minutes; for each pound of veal, 15 to 20 minutes; for shoulder of mutton weighing five to six pounds, 1 hour; for leg of mutton, for each pound, 20 minutes; for leg of lamb, 15 minutes; for tongue of beef, 4 hours; for ham, for each pound, 30 minutes; for turkey, for each pound, 20 minutes; for brill, 10 to 15 minutes; for turbot (four to five pounds), 20 to 30 minutes; for haddock, 15 to 30 minutes; for mackerel, 20 to 30 minutes; for salmon, to each pound, 8 minutes; for skate, 30 to 60 minutes; for whiting, 5 to 15 minutes; for cod (only simmer), 1 hour; for fish in general, to each pound, 10 minutes; for carrots, 1 hour; for turnips, parsnips, cabbage, sea-kale, 1 hour; for cauliflower, onions, beans (young), 1 hour; for peas (young), squash (spring), 30 minutes; for dried peas, 2 hours; for winter squash (steam), 2 hours; for oyster-plant, 1 hour; for beets (young), 1 to 2 hours; for beets (old), 3 to 8 hours; for asparagus (young), 30 minutes; for asparagus (old), 1 hour; for artichokes, 1 hour; for winter carrots, parsnips, turnips and cabbage, 2 hours; for corn, 10 to 15 minutes.

Roasting.

How to Roast.—Roasting is conducted upon the same general principles as boiling. First the sharp heat and then the pan must be removed to a greater distance from the fire to allow a lower heat gradually to penetrate the centre. Roasted meat is more savory than boiled. If properly roasted the meat should be juicy enough to show a quantity of red gravy with the first cut.

When Roasts are Done.—Before serving the meat it should be ascertained whether it is done or not, and this can be done by drawing it back from the fire and pressing the fleshiest part with the finger. If the cooking be perfect the flesh will yield to the finger; if not, there will be a little resistance. For fowls and game examine the leg; if the flesh yield and is ready to come away from the bone the cooking is sufficient. When meat is nearly done there are small jets of steam to be seen coming from the meat at the side next the fire.

Time Required for Roasting.—For beef (rare), to each pound, 10 minutes; for beef (well-done), to each pound, 15 to 20 minutes; for mutton, to each pound, 15 minutes; for veal, to each pound, 20 minutes; for turkey, to each pound, 10 to 12 minutes; for duck (game), 30 minutes; for duck (tame), 1 hour; for capon, 50 to 60 minutes; for fowl, 60 minutes; for pigeon, 15 to 30 minutes; for pheasant, 35 minutes; for partridge, woodcock or plovers, 15 minutes; for grouse, snipe, small birds, 20 minutes; for larks, 6 minutes; for hare, 1½ hours; for rabbits, 20 to 60 minutes; for goose, 2 hours.

Broiling.

Advantage of Broiling.—Some one has said "the gridiron is the thermometer of civilization." Broiling produces the same effect as roasting, but the proportion of scorched material is greater on account of the relatively larger amount of surface exposed. The principle of cooking should be the same to retain the central portion juicy. If a cook cannot manage to broil meat well, if her broiling make a greasy, yet burned morsel, she had better fry, for this process is less likely to be a failure; but broiling is better for weak digestions.

A Good Broiling Fire.—For good broiling the fire should be prepared at least a quarter of an hour before it is required; a layer of cinders, an inch and a half thick, spread over the hot coals and left to burn clear. If not perfectly clear at the last moment a little salt thrown on the fire makes it burn more clearly and frees it from smoke.

The Proper Gridiron.—The gridiron should be clean, and its upper surface well greased to prevent the meat from sticking. An improved kind of gridiron has its upper surface grooved and all terminating in a hollow in the handle, so as to save a little of that rich gravy which would otherwise fall into the fire.

Time Required for Broiling.—For rump steak, about one and a half pounds, 10 to 15 minutes; for fillet steak, one and a half pounds, 7 minutes; for mutton chop, five ounces, 6 minutes; for sheep's kidney (brisk fire), 4 minutes; for veal chop, seven ounces, 9 minutes; for pork chop, seven ounces, 9 minutes; for mackerel, 10 to 15 minutes.

Baking.

Effect of Baking.—Baking renders meat more impregnated with empyreumatic, or smoky tasted products, and therefore richer and stronger for the stomach than any other process of cooking.

Time Required for Baking.—For potatoes (with or without skins), 1 hour; for egg-plant and tomatoes, 1 hour; for omelet, 15 to 20 minutes; for eggs (until they set), 15 to 20 minutes; for shad, 1 hour; for cod, black fish and haddock, four pounds, 1 hour; for fish generally, four to six pounds, 1 hour; for clams, 20 minutes.

Frying.

Effect of Frying.—Frying is also an objectionable process of cooking for persons of weak digestive powers. The article of food becomes more or less penetrated with fatty matter, making it more resistant to the digestive fluids. It is also likely to contain fatty-acid products arising from the decomposition of the fat used in frying; these are not well borne by the stomach, causing general dyspeptic symptoms, but particularly heart-burn.

Removing Objections to Frying.—Frying is less objectionable if the meat or fish is rolled in cracker-dust and egg and then dropped into hot lard. The egg hardens instantly and no fat penetrates the inside.

Stewing.

Effects of Stewing.—Stewing places food in a highly favorable state for digestion. The articles to be cooked are just covered with water, and should be exposed to a heat sufficient only to allow of gentle simmering; much of the nutritive matter passes into the surrounding liquids; this is eaten as well as the solid material. If properly cooked the meat should be rendered sufficiently tender to break down under moderate pressure. If boiling is permitted the meat becomes tough.

Foods and Their Digestion.

KINDS OF FOOD.	Form of Preparation.	Time Required for Digestion.
Apples—mellow	Raw	2 hours
Apples—sour, hard	Raw	2 hrs. 50 min
Apples—sweet, mellow	Raw	1 hr. 50 min
Barley	Boiled	2 hours
Bass—fresh	Broiled	3 hours
Beans—pod	Boiled	2 hrs. 30 min
Beans and Green Corn	Boiled	3 hrs. 45 min
Beef—fresh, lean, rare	Roasted	3 hours
Beef—fresh, lean, dry	Roasted	3 hrs. 30 min
Beef—fresh steak	Broiled	3 hours
Beef—with salt only	Broiled	2 hrs. 45 min

Kinds of Food.	Form of Preparation.	Time Required for Digestion.
Beef—with mustard, etc.	Broiled	3 hrs. 30 min
Beef	Fried	4 hours
Beef—old, hard, salted	Boiled	4 hrs. 15 min
Beets	Boiled	3 hrs. 45 min.
Brains—animal	Boiled	1 hr. 45 min
Bread—corn	Baked	3 hrs. 15 min
Bread—wheat, fresh	Baked	3 hrs. 30 min
Butter	Melted	3 hrs. 30 min
Cabbage—head	Raw	2 hrs. 30 min
Cabbage—with vinegar	Raw	2 hrs. 30 min
Cabbage	Boiled	2 hours
Cake—corn	Baked	4 hrs. 30 min
Cake—sponge	Baked	3 hours
Carrot	Boiled	2 hrs. 30 min
Cartilege	Boiled	3 hrs. 15 min
Catfish—fresh	Fried	4 hrs. 15 min
Cheese—old, strong	Raw	3 hrs. 30 min
Chicken	Fricassee	3 hrs. 30 min
Codfish—cured, dry	Boiled	2 hrs. 45 min
Corn (green) and Beans	Boiled	2 hours
Custard	Baked	3 hrs. 45 min
Duck—domesticated	Roasted	2 hrs. 45 min
Duck—wild	Roasted	4 hours
Dumpling—apple	Boiled	4 hrs. 30 min
Eggs—fresh	Hard boiled	3 hours
Eggs—fresh	Soft boiled	3 hrs. 30 min
Eggs—fresh	Fried	3 hrs. 30 min
Eggs—fresh	Roasted	2 hrs. 15 min
Eggs—fresh	Raw	2 hours
Eggs—fresh	Whipped	1 hr. 30 min
Flounder—fresh	Fried	3 hrs. 30 min
Fowls—domestic	Boiled	4 hours
Fowls—domestic	Roasted	4 hours
Gelatin	Boiled	2 hrs. 30 min
Goose—wild	Roasted	2 hrs. 30 min
Heart—animal	Fried	4 hours
Lamb—fresh	Boiled	2 hrs. 30 min
Liver—beef's, fresh	Boiled	2 hours
Marrow—animal, spinal	Boiled	2 hrs. 40 min
Meat and Vegetables	Hashed	2 hrs. 30 min
Milk	Boiled	2 hours
Milk	Raw	2 hrs. 15 min
Mutton—fresh	Roasted	3 hrs. 15 min
Mutton—fresh	Broiled	3 hours
Mutton—fresh	Broiled	3 hours
Oysters—fresh	Raw	2 hrs. 55 min
Oysters—fresh	Roasted	3 hrs. 15 min
Oysters—fresh	Stewed	3 hrs. 30 min
Parsnips	Boiled	2 hrs. 30 min
Pig—sucking	Roasted	2 hrs. 30 min
Pig's feet—soused	Boiled	1 hour
Pork—fat and lean	Roasted	5 hrs. 15 min
Pork—recently salted	Boiled	4 hrs. 30 min
Pork—recently salted	Fried	4 hrs. 15 min
Pork—recently salted	Broiled	3 hrs. 15 min
Pork—recently salted	Raw	3 hours
Pork—recently salted	Stewed	3 hours
Potatoes—Irish	Boiled	3 hrs. 30 min
Potatoes—Irish	Roasted	2 hrs. 30 min
Potatoes—Irish	Baked	3 hrs. 20 min
Rice	Boiled	1 hour
Sago	Boiled	1 hr. 45 min
Salmon—salted	Boiled	4 hours
Sausage—fresh	Broiled	3 hrs. 20 min
Soup—barley	Boiled	1 hr. 30 min
Soup—bean	Boiled	3 hours
Soup—beef, vegetables & bread	Boiled	4 hours
Soup—chicken	Boiled	3 hours
Soup—marrow bones	Boiled	4 hrs. 15 min
Soup—mutton	Boiled	3 hrs. 20 min
Soup—oyster	Boiled	3 hrs. 30 min
Suet—beef, fresh	Boiled	5 hrs. 30 min
Suet—mutton	Boiled	4 hrs. 30 min
Tapioca	Boiled	2 hours
Tendon—boiled	Boiled	5 hrs. 30 min
Tripe—soused	Boiled	1 hour
Trout—salmon, fresh	Boiled	1 hr. 30 min
Trout—salmon, fresh	Fried	1 hr. 30 min
Turkey—domestic	Roasted	2 hrs. 30 min
Turkey—domestic	Boiled	2 hrs. 25 min
Turkey—wild	Roasted	2 hrs. 18 min
Turnips	Boiled	3 hrs. 30 min
Veal—fresh	Broiled	4 hours
Veal—fresh	Fried	4 hrs. 30 min
Vegetables and Meat—hashed	Warmed	2 hrs. 30 min
Venison—steak	Broiled	1 hr. 35 min

PERCENTAGE OF NUTRITION IN VARIOUS ARTICLES OF FOOD.

Raw cucumbers	2
Raw melons	3
Boiled turnips	4½
Milk	7
Cabbage	7½
Currants	10
Whipped eggs	13
Beets	14
Apples	16
Peaches	20
Boiled codfish	21
Broiled venison	22
Potatoes	22½
Fried veal	24
Roast pork	24
Roast poultry	26
Raw beef	26
Raw grapes	27
Raw plums	29
Broiled mutton	30
Oatmeal porridge	75
Rye bread	79
Boiled beans	87
Boiled rice	88
Barley bread	88
Wheat bread	90
Baked corn bread	91
Boiled barley	92
Butter	92
Boiled peas	93
Raw oils	95

AMOUNT OF SLEEP REQUIRED EACH DAY FOR A CHILD.

At 4 months, 20 hours of sleep is required.
At 6 months, 18 hours of sleep is required.
At 1 year, 15 hours of sleep is required.
At 2 years, 13 hours of sleep is required.

At 4 years, 12 hours of sleep is required.
At 7 years, 11 hours of sleep is required.
At 9 years, 10½ hours of sleep is required.
At 14 years, 10 hours of sleep is required.

EXPECTATION OF LIFE AT VARIOUS AGES.

AGE.	Male.	Female.	Age.	Male.	Female.	Age.	Male.	Female.	Age.	Male.	Female.
0 year	39.91	41.85	25 years	36.12	37.04	50 years	19.54	20.75	75 years	6.49	6.93
1 year	46.65	47.31	26 years	35.44	36.39	51 years	18.90	20.09	76 years	6.15	6.56
2 years	48.83	49.40	27 years	34.77	35.75	52 years	18.28	19.42	77 years	5.82	6.21
3 years	49.61	50.20	28 years	34.10	35.10	53 years	17.67	18.75	78 years	5.51	5.88
4 years	49.81	50.43	29 years	33.43	34.46	54 years	17.06	18.08	79 years	5.21	5.56
5 years	49.71	50.33	30 years	32.76	33.81	55 years	16.45	17.43	80 years	4.93	5.26
6 years	49.39	50.00	31 years	32.09	33.17	56 years	15.86	16.79	81 years	4.66	4.98
7 years	48.92	49.53	32 years	31.42	32.53	57 years	15.26	16.17	82 years	4.41	4.71
8 years	48.37	48.98	33 years	30.74	31.88	58 years	14.68	15.55	83 years	4.17	4.45
9 years	47.74	48.35	34 years	30.07	31.23	59 years	14.10	14.94	84 years	3.95	4.21
10 years	47.05	47.67	35 years	29.40	30.59	60 years	13.53	14.34	85 years	3.73	3.98
11 years	46.31	46.95	36 years	28.73	29.94	61 years	12.96	13.75	86 years	3.53	3.76
12 years	45.54	46.20	37 years	28.06	29.29	62 years	12.41	13.17	87 years	3.34	3.56
13 years	44.76	45.44	38 years	27.39	28.64	63 years	11.87	12.60	88 years	3.16	3.36
14 years	43.97	44.68	39 years	26.72	27.99	64 years	11.34	12.05	89 years	3.00	3.18
15 years	43.18	43.90	40 years	26.06	27.34	65 years	10.82	11.51	90 years	2.84	3.01
16 years	42.40	43.14	41 years	25.39	26.69	66 years	10.32	10.98	91 years	2.69	2.85
17 years	41.64	42.40	42 years	24.73	26.03	67 years	9.83	10.47	92 years	2.55	2.70
18 years	40.90	41.67	43 years	24.07	25.38	68 years	9.36	9.97	93 years	2.41	2.55
19 years	40.17	40.97	44 years	23.41	24.72	69 years	8.90	9.48	94 years	2.29	2.42
20 years	39.48	40.29	45 years	22.76	24.06	70 years	8.45	9.02	95 years	2.17	2.29
21 years	38.80	39.63	46 years	22.11	23.40	71 years	8.03	8.57	96 years	2.06	2.17
22 years	38.13	38.98	47 years	21.46	22.74	72 years	7.62	8.13	97 years	1.95	2.06
23 years	37.46	38.33	48 years	20.82	22.08	73 years	7.22	7.71	98 years	1.85	1.96
24 years	36.79	37.68	49 years	20.17	21.42	74 years	6.85	7.31	99 years	1.76	1.86
									100 years	1.68	1.76

TABLE SHOWING THE DEATH-RATE PER 1000 OF EACH SEX IN EACH OF THE THREE CONDITIONS OF LIFE.

AGES.	MALES.			FEMALES.		
	Unmarried.	Married.	Widowers.	Unmarried.	Married.	Widows.
20–25	12.88	8.92	49.60	8.32	9.92	12.31
25–30	10.17	6.24	21.84	9.02	8.98	23.62
30–35	11.51	6.82	19.17	9.87	9.36	16.90
35–40	13.15	7.52	17.50	10.87	9.29	15.03
40–45	16.62	9.55	18.89	13.28	10.14	12.73
45–50	19.60	11.47	22.20	15.71	10.69	13.30
50–55	25.80	15.61	26.80	20.97	14.11	15.20
55–60	32.10	21.50	34.17	26.90	19.29	24.47
60–65	45.92	32.60	47.50	40.52	30.75	37.07
65–70	58.50	44.80	62.97	58.30	45.30	53.50

AVERAGE WEIGHT AND STATURE OF MAN.

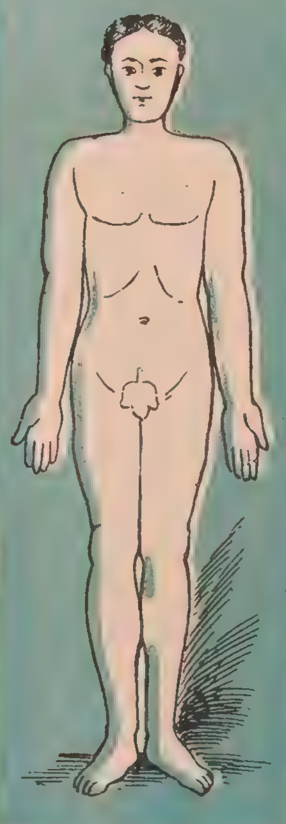
MALES.			FEMALES		
Age.	Feet.	Pounds.	Age.	Feet.	Pounds.
0 years	1.64	7.06	0 years	1.62	6.42
2 years	2.60	25.01	2 years	2.56	23.53
4 years	3.04	31.38	4 years	3.00	28.67
6 years	3.44	38.80	6 years	3.38	35.29
9 years	4.00	49.95	9 years	3.92	47.10
11 years	4.36	49.77	11 years	4.26	56.57
13 years	4.72	75.81	13 years	4.60	72.65
15 years	5.07	96.40	15 years	4.92	89.04
17 years	5.36	116.56	17 years	5.10	104.34
18 years	5.44	127.59	18 years	5.13	112.55
20 years	5.49	132.46	20 years	5.16	115.30
30 years	5.52	140.38	30 years	5.18	119.82
40 years	5.52	140.42	40 years	5.18	121.81
50 years	5.49	139.96	50 years	5.04	123.86
60 years	5.38	136.07	60 years	4.97	119.76
70 years	5.32	131.27	70 years	4.97	113.60
80 years	5.29	127.54	80 years	4.94	108.80
90 years	5.29	127.54	90 years	4.94	108.81

WHAT WE ARE MADE OF.

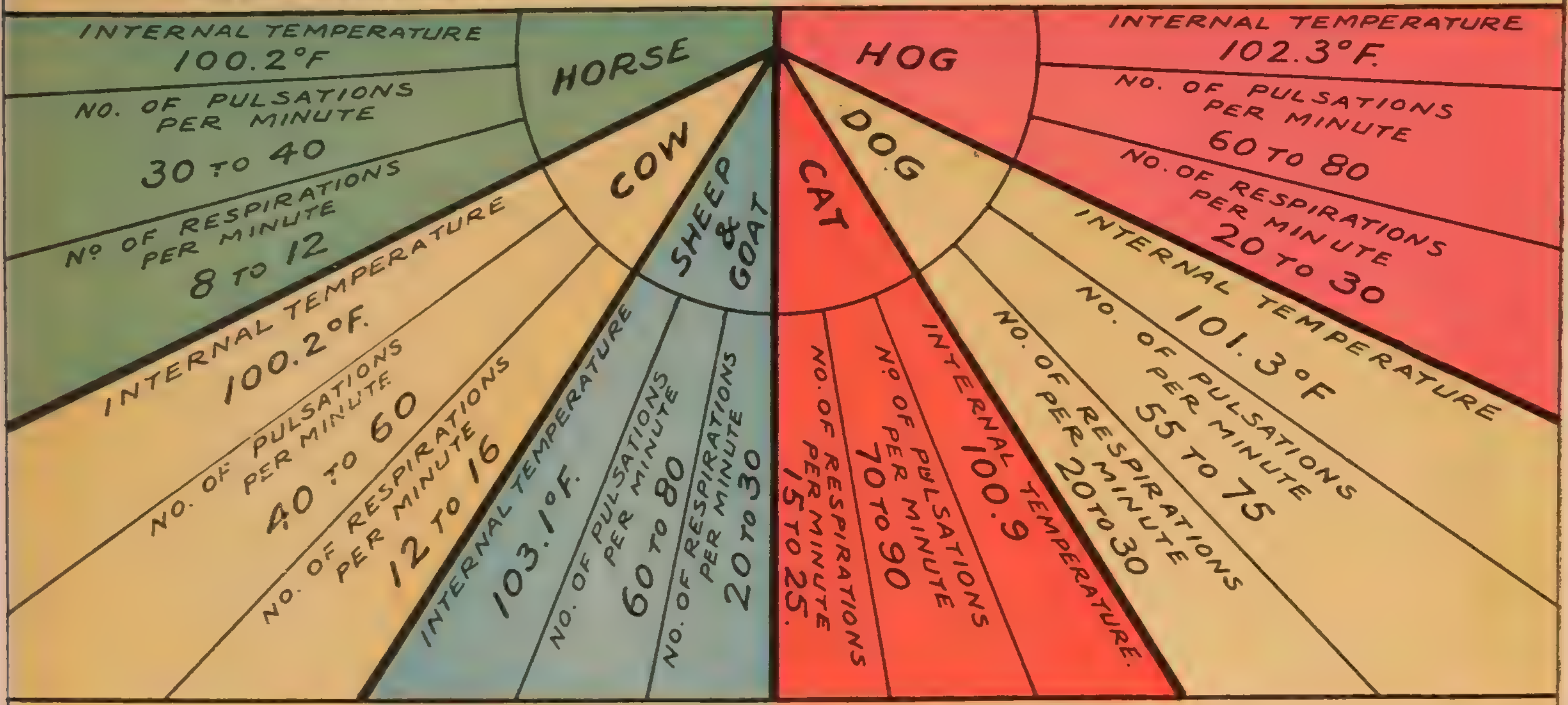
	ELEMENTS OF HUMAN BODY	POUNDS	OUNCES	GRAINS
1	Water.	109	0	0
2	Fibrine	15	10	0
3	Phosphate of Lime	8	12	0
4	Fat	4	8	0
5	Osseine, or Gelatine.	4	7	350
6	Keratine in Hair and Nails.	4	2	0
7	Cartilagine.	1	8	0
8	Hemoglobine, Red Blood Maker.	1	8	0
9	Albumen	1	1	0
10	Carbonate of Lime	1	1	0
11	Kephalin, Nerve and Brain.	0	13	0
12	Fluoride of Calcium	0	7	175
13	Phosphate of Magnesia.	0	7	0
14	Chloride of Sodium	0	7	0
15	Cholesterin	0	3	0
16	Sulphate & Phosphate of Sodium.	0	2	107
17	Sulphate, etc. of Potassium	0	0	300
18	Silica.	0	0	30
	Total for Body of	154	0	0

HEALTHY PROPORTIONS FOR A MAN.

HEIGHT	STANDARD WEIGHT LBS.	20% UNDER WEIGHT LBS.	45% OVER WEIGHT LBS.	CHEST INCHES
5 FEET	115	92	167	33½
5 " 1 INCH	120	96	174	34
5 " 2 "	125	100	181	35
5 " 3 "	130	104	188	36
5 " 4 "	135	108	195	36½
5 " 5 "	140	112	203	37
5 " 6 "	143	114	207	37½
5 " 7 "	145	116	210	38
5 " 8 "	148	119	215	38½
5 " 9 "	155	124	224	39
5 " 10 "	160	128	232	39½
5 " 11 "	165	132	239	40½
6 "	170	136	246	41

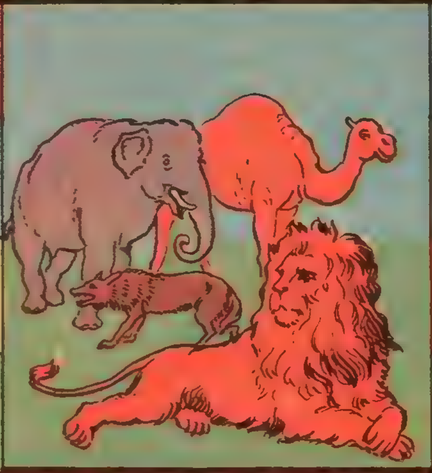


NORMAL TEMPERATURE, PULSE & RESPIRATION.



	INTERNAL TEMPERATURE	NO. OF PULSATIONS PER MINUTE	NO. OF RESPIRATIONS PER MINUTE
HORSE	100.2°F	30 TO 40	8 TO 12
COW	100.2°F.	40 TO 60	12 TO 16
SHEEP & GOAT	103.1°F.	60 TO 80	20 TO 30
CAT	100.9	70 TO 90	15 TO 25.
DOG	101.3°F	55 TO 75	20 TO 30
HOG	102.3°F.	60 TO 80	20 TO 30

HOW LONG ANIMALS LIVE.



CAMEL	100 YEARS
CANARY BIRD	10 YEARS
CAT.	15 YEARS.
COW	20 YEARS
CROW	50 YEARS
DOG	14 YEARS
ELEPHANT	100 YEARS
FOX	15 YEARS
GOOSE	50 YEARS
HEN	10 YEARS
HORSE	30 YEARS
LION	70 YEARS
MAN	100 YEARS
PARROT	100 YEARS
PEAFOWL	20 YEARS
PIGEON	20 YEARS
RABBIT	7 YEARS
RAVEN	50 YEARS
SHEEP	10 YEARS
SWAN	100 YEARS
SWINE	20 YEARS
WOLF	20 YEARS

COMPOSITION OF THE HUMAN BODY.

Elements.	Pounds.	Ounces.	Grains.
1. Water, which is found in every part of the body, and amounts to	109	0	0
2. Fibrine, and like substances, found in the blood, and forming the chief solid materials of the flesh	15	10	0
3. Phosphate of lime, chiefly in bones and teeth, but in all liquids and tissues	8	12	0
4. Fat, a mixture of three chemical compounds, and distributed all through the body	4	8	0
5. Osseine, the organic framework of bones; boiled, gives gelatine. Weighs	4	7	350
6. Keratine, a nitrogenous substance, forming the greater part of hair, nails and skin. Weighs	4	2	0
7. Cartilagine resembles the osseine or bone, and is a nitrogenous substance, the chief constituent of cartilage, weighing	1	8	0
8. Hemoglobine, gives the red color to the blood and is a nitrogenous substance containing iron, and weighing	1	8	0
9. Albumen is a soluble nitrogenous substance found in the blood, chyle, lymph and muscle, and weighs	1	1	0
10. Carbonate of lime is found in the bones chiefly, and weighs	1	1	0
11. Kephalin is found in nerves and brain with cerebrine and other compounds	0	13	0
12. Fluoride of calcium is found in teeth and bones, and weighs	0	7	175
13. Phosphate of magnesia is also in teeth and bones, and weighs	0	7	0
14. Chloride of sodium, or common salt, is found in all parts of the body and weighs	0	7	0
15. Cholesterin, glycogen and inosite are compounds containing hydrogen, oxygen and carbon, found in muscle, liver and brain, and weighing	0	3	0
16. Sulphate, phosphate and salts of sodium, found in all tissues and liquids	0	2	107
17. Sulphate, phosphates and chloride of potassium are also in all tissues and liquids	0	0	300
18. Silica, found in hair, skin and bone	0	0	30
	154	0	0

AVERAGE LENGTH OF LIFE IN VARIOUS OCCUPATIONS.

Occupations.	Years	Occupations.	Years.
Farmers	65.19	Artists	44.56
Millers	57.43	Shoemakers	44.45
Sawyers	56.67	Brushmakers	43.40
Physicians	55.08	Furnace men	43.05
Hatters	54.55	Founders	42.73
Clock and watchmakers	54.43	Shoecutters	42.62
Carpenters and joiners	53.31	Pianofortemakers	42.50
Blacksmiths	53.31	Glasscutters	42.39
Sailmakers	52.84	Civil engineers	42.34
Woodturners	52.55	Cigarmakers	41.59
Combmakers	51.38	Engineers	41.57
Masons	50.48	Musicians	41 19
Butchers	50.29	Tinsmiths	40.96
Tanners	50.05	Expressmen	40 94
Cabinetmakers	48.65	Nailmakers	40.80
Gunsmiths	48.57	Machinists	40.80
Carriagemakers	48.38	Jewelers	40.29
Harnessmakers	48.36	Servants (women)	40.19
Brickmakers	47.99	Teamsters	40.13
Woolsorters	47.55	Bookbinders	39.94
Leatherdressers	47.41	Upholsterers	39.78
Laborers	47.39	Barbers	39.77
Musical instrument makers	47.32	Pail and tubmakers	39.50
Tailors	47.19	Cutlers	39.23
Architects	47.15	Operatives	38.92
Bakers	46.76	Printers	38.57
Dressmakers (women)	46.49	Cigarmakers	38.31
Seamen	46.33	Engineers and firemen	38.21
Stonecutters	46.30	Drivers	38.16
Coppersmiths	46.07	Milliners	37.30
Silver and goldsmiths	45.46	Glassblowers	37.81
Dyers	45.35	Plumbers	35.43
Mechanics	45.13	Carvers	33.84
Painters	45.05	Operatives (women)	27.98
Weavers	44.65		

WARMTH AND STRENGTH DERIVED FROM VARIOUS ARTICLES OF FOOD AND DRINK

Grains of Strength yielded by one pound of 7,000 grains.

	Grains.
Beer or porter	1
Parsnips	12
Turnips	12
Whey	13
Greens	14
Potatoes	24
Skimmed milk	34
New milk	35
Buttermilk	35

Grains of Warmth yielded by one pound of 7,000 grains.

	Grains.
Whey	150
Turnips	238
Beer and porter	315
Buttermilk	335
Skimmed milk	351
New milk	378
Carrots	390
Parsnips	425
Potatoes	770

WARMTH AND STRENGTH DERIVED FROM VARIOUS ARTICLES OF FOOD AND DRINK—(Cont'd)

Grains of Strength yielded by one pound of 7,000 grains.

	Grains.
Barley	70
Rice	70
Bacon	78
Rye bread	89
Baker's bread	90
Pearl barley	91
Fresh pork	108
Seconds flour	120
Corn meal	125
Fresh fish	129
Cocoa	130
Oatmeal	140
Mutton	140
Fresh beef	172
Beef liver	200
Split peas	250
Cheddar cheese	310
Skim milk cheese	360

Grains of Warmth yielded by one pound of 7,000 grains.

	Grains
Fresh fish	980
Beef liver	1,220
Red herrings	1,455
Baker's bread	1,990
Fresh beef	2,300
Molasses	2,300
Skim milk cheese	2,350
Cheddar cheese	2,550
Seconds flour	2,700
Rye bread	2,700
Rice	2,750
Barley meal	2,780
Indian meal	2,800
Sugar	2,900
Fresh Pork	3,100
Bacon	4,200
Butter	4,700
Lard	4,800
Drippings	5,500

MINIMUM WEIGHTS OF PRODUCE.

The following are minimum weights of certain articles of produce according to the laws of the United States:

	Per Bushel.		Per Bushel.		Per Bushel.
Wheat	60 pounds.	White potatoes	60 pounds.	Hungarian grass seed	50 pounds.
Corn, in the ear	70 pounds.	Sweet potatoes	55 pounds.	Timothy seed	45 pounds.
Corn, shelled	56 pounds.	Onions	57 pounds.	Blue grass seed	44 pounds.
Rye	56 pounds.	Turnips	55 pounds.	Hemp seed	44 pounds.
Buckwheat	48 pounds.	Dried peaches	33 pounds.	Salt (see note below).	
Barley	48 pounds.	Dried apples	26 pounds.	Corn Meal	48 pounds.
Oats	32 pounds.	Clover seed	60 pounds.	Ground peas	24 pounds.
Peas	60 pounds.	Flax seed	56 pounds.	Malt	34 pounds.
White beans	60 pounds.	Millet seed	50 pounds.	Bran	20 pounds.
Castor beans	46 pounds.				

SALT.—Weight per bushel as adopted by different States ranges from 50 to 80 pounds. Coarse salt in Pennsylvania is reckoned at 80 pounds, and in Illinois at 50 pounds per bushel. Fine salt in Pennsylvania is reckoned at 62 pounds, in Kentucky and Illinois at 55 pounds per bushel.

TIME IN WHICH MONEY AT INTEREST DOUBLES.

RATE PER CENT.	At Simple Interest.	At Compound Interest.	RATE PER CENT.	At Simple Interest.	At Compound Interest.
1	In 100 years	In 69.660 years.	6	In 16.67 years	In 11.896 years.
1½	In 66.66 years	In 46.556 years.	6½	In 15.38 years	In 11.007 years.
2	In 50.00 years	In 35.003 years.	7	In 13.29 years	In 10.245 years.
2½	In 40.00 years	In 28.071 years.	7½	In 13.33 years	In 9.584 years.
3	In 33.33 years	In 23.450 years.	8	In 12.50 years	In 9.006 years.
3½	In 28.57 years	In 20.149 years.	8½	In 11.76 years	In 8.479 years.
4	In 25.00 years	In 17.673 years.	9	In 11.11 years	In 8.043 years.
4½	In 22.22 years	In 15.747 years.	9½	In 10.52 years	In 7.638 years.
5	In 20.00 years	In 14.207 years.	10	In 10.00 years	In 7.273 years.
5½	In 18.18 years	In 12.942 years.	12	In 8.34 years	In 6.116 years.

PRICE AND NUTRITION OF MEATS.

It is not the high-priced cuts of meats which are most nutritious, but the cheaper meat, which is within the reach of the hard-working man who needs the strength it gives, viz.:

Neck of beef, value	6 cents per pound	4.17 nutritious.
Round of beel, value	15 cents per pound	1.67 nutritious.
Sirloin of beef,, value	25 cents per pound	1 nutritious.
Mutton, value	22 cents per pound	1.14 nutritious.
Salt pork, value	12 cents per pound	2.08 nutritious.

NUTRITIVE VALUE OF FOODS COMPARED WITH FLOUR.

Taking wheat flour as a standard in parts of 100, they will be found to approximately equal in nutritive value the following parts of other foods:

Beans	44 parts.	Maize	130 parts.
Peas	67 "	Rice	177 "
Buckwheat	108 "	Potatoes	313 "
Rye	111 "	Carrots	777 "
Oats	117 "	Cabbage	810 "
Barley	130 "	Turnips	1,335 "

BOARDERS' AND HOTEL KEEPERS' TABLE.

When board is rated by the week, as is usual, the following table shows the amount due per day, and for the total days up to seven:

RATE PER WEEK.	One Day.	Two Days.	Three Days.	Four Days.	Five Days.	Six Days.	Seven Days.
$1.00	$0.14	$.029	$0.43	$0.57	$0.71	$0.82	$1.00
1.25	.18	.36	.54	.71	.89	1.07	1.25
1.50	.21	.43	.64	.86	1.07	1.29	1.50
1.75	.25	.50	.75	1.00	1.25	1.50	1.75
2.00	.29	.57	.86	1.14	1.43	1.71	2.00
2.25	.32	.64	.96	1.29	1.61	1.93	2.25
2.50	.36	.71	1.07	1.43	1.79	2.14	2.50
3.00	.43	.86	1.29	1.71	2.14	2.57	3.00
3.50	.50	1.00	1.50	2.00	2.53	3.00	3.50
4.00	.57	1.14	1.71	2.29	2.86	3.43	4.00
4.50	.64	1.29	1.93	2.57	3.21	3.86	4.50
5.00	.71	1.43	2.14	2.86	3.57	4.29	5.00
6.00	.86	1.71	2.57	3.43	4.29	5.14	6.00
7.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
8.00	1.14	2.29	3.43	4.57	5.71	6.86	8.00
9.00	1.29	2.57	3.86	5.14	6.43	7.71	9.00
10.00	1.43	2.86	4.29	5.71	7.14	8.57	10.00

Death to Caterpillars.

A spray for trees infested with caterpillars, compounded according to any of the following formulas has been found excellent in its killing effects.

1. Paris green, 1½ ounces; lime, 8 ounces; water, 50 gallons.

2. London purple, 3 ounces; lime, 12 ounces; water, 50 gallons.

3. Or make an arsenic solution by boiling the following for fifteen minutes:

White arsenic, 1 pound; sal soda, 2 pounds; water, 3 quarts.

Then bring the above arsenic solution into use thus:

Water, 50 gallons; arsenic solution, 1 quart; lime, 3 pounds.

Or, water, 50 gallons; sugar of lead, 12 ounces; lime, 6 ounces; arsenic solution, 1 quart.

Protection of the Fruit-Growing Industry.

The recent introduction of the San José scale and some other destructive insects from abroad, and the insidious character of fungus diseases and increasing injuries to fruit trees from insect pests, have led some thirty-four States to create Boards of horticulture, or authorize State entomologists or commissioners of agriculture to investigate plant diseases and insect pests, with power to suppress or prevent their spread. The extent of these powers and upon whom conferred, where definitely defined by statute, are as follows:

Alabama.—Duty of the Commissioner of Agriculture to examine and report upon diseases of fruit trees, and order owners to destroy.

Arizona.—County Board of Supervisors to appoint county boards of horticultural commissioners, which, through their fruit inspectors, have plenary power over fruit orchards.

California.—County boards of horticulture have plenary power over orchards, nurseries, vegetables, vines, fruits, packing houses and storage rooms.

Colorado.—State Board of Horticulture prescribes regulations for prevention of fruit-tree diseases and extermination of fruit pests.

Connecticut.—A commission, appointed by the State Board of Agriculture, has power over fruit-tree diseases and pests. Appeal may be had to the State Board of Agriculture.

Delaware.—Peach commissioners, appointed by the Governor, have full power over peach trees, subject to the provisions of law.

Florida.—Sale or gift of diseased nursery stock prohibited by statute.

Georgia.—A State Board of Entomology has full power to enact regulations respecting fruit trees and orchards.

Idaho.—The State Board of Horticulture divides the State into ten districts and appoints a horticultural and general State inspector for each, who have plenary power of inspection and destruction of diseased or infested fruit trees.

Indiana.—The State Entomologist has power to examine, report and advise remedies respecting nurseries, tree-diseases and insect pests.

Iowa.—The State Entomologist is charged with the execution of the statute for the protection of fruit trees.

Illinois.—The State Entomologist is required to annually inspect the nurseries, suspected or infected premises, orchards, etc., and take action to prevent the spread of tree-diseases and pests.

Kansas.—Misrepresentation or fraud respecting fruit trees, or any other kind, is a misdemeanor.

Kentucky.—The State Entomologist and Botanist is required to make an annual inspection of nurseries, and fruit orchards upon notice and to report on same, or even to destroy in case owner refuses.

Louisiana.—The Entomologist of the State Horticultural Experiment Station has power, even to the extent of destruction, over fruit tree diseases and pests.

Maryland.—The State Horticultural Department has full power to suppress or eradicate the San José scale and all fruit-tree diseases and insects. In addition the County Commissioners may appoint "Tree and Fruit Inspectors," who shall be practical peach growers, with power over peach trees and orchards.

Massachusetts.—The State Board of Agriculture may exercise any reasonable effort for the extermination of fruit-tree diseases and pests.

Michigan.—A State inspector of nurseries and orchards is appointed by the State Board of Agriculture, who has power to apply all needful remedies for the protection of fruit trees against diseases and pests.

Missouri.—The protection of fruit trees against diseases and pests reposes in the State Experiment

Station, and an inspector appointed by the Governor.

Montana.—The State Board of Agriculture may prescribe regulations for the prevention of fruit-tree diseases and the extirpation of pests.

New Jersey.—Commissioners must notify orchard owners to eradicate pests in five days; if not done, they report to the State Entomologist, who has power to fine owners, and destroy diseased and infested trees.

New Mexico.—The County Commissioners appoint a County Horticultural Board which has plenary power to inspect and destroy diseased and infested fruit trees.

New York.—The State Department of Agriculture is charged with the execution of all laws relating to agriculture. In matters of tree-diseases and pests the Commissioner of Agriculture works through a special agent, who reports and exercises necessary powers.

North Carolina.—The extermination of noxious insects, fungus diseases and weeds is under control of a commission composed of the State Commissioner of Agriculture, director of the State Experiment Station and the President of the State Horticultural Society..

Ohio.—The San José scale and all plant and tree-diseases are under the Board of Control of the Agricultural Experiment Station.

Oregon.—A board consisting of the Governor, Secretary of State and State Treasurer appoints a Board of Horticulture consisting of six members, which has power to inspect fruit trees and orchards and report upon their condition and the means taken to exterminate pests.

Pennsylvania.—Local commissioners are provided for in the townships, boroughs and cities, who investigate tree-diseases and pests, with power to treat and destroy.

Texas.—Officers of the agricultural and horticultural department are empowered to employ entomologists, who shall devise means of destroying injurious insects and eradicating plant diseases.

Utah.—A Board of Horticulture consisting of three members has control of tree-diseases and pests, with plenary powers.

Vermont.—Select men of the towns have charge of the treatment of tree-diseases and pests.

Virginia.—The Board of Control of the Virginia Experiment Station is created a State Board of Crop Pest Commissioners, which appoints a State entomologist and inspector to attend to tree-diseases and pests.

Washington.—The Governor appoints a Commissioner of Horticulture, who attends to all the horticultural interests of the State, with plenary powers.

Wisconsin.—The Director of the Agricultural Experiment Station of the University of Wisconsin is authorized to inspect, through agents, the horticultural interests of the State.

Wyoming.—A statutory fine is imposed on all who injure fruit trees.

System of Weights and Measures Used in the United States.

APOTHECARIES' MEASURES.

60 minims (M) = 1 fluid-drachm, f ʒ
8 f ʒ = 1 fluid-ounce, f ℥
16 f ℥ = 1 pint, O
8 O = 1 gallon, C

When Roman numerals are used after the signs to which they relate: thus ʒ $\overline{\text{i}}$ = 1 drachm; ʒ $\overline{\text{iv}}$ = 4 drachms, they indicate troy weight.

ss = one-half; thus ʒ ss = one-half drachm.

When Arabic numerals are used before the signs to which they relate: thus $\overline{1}$ ʒ = 1 drachm; $\overline{4}$ ʒ = 4 drachms, they indicate avoirdupois weight.

a a = of each.

APOTHECARIES' OR PHARMACEUTISTS' WEIGHTS.

Used in Prescribing and Mixing Dry Medicines.

(Dry medicines are sold by avoirdupois weight, and prescribed and mixed by troy weight.)

20 grains (gr.) = 1 scruple (Sc. or) ℈
3 ℈ = 1 drachm (Dr. or) ʒ
8 ʒ = 1 ounce (oz. or) ℥
12 ℥ = 1 pound troy (℔).

AVOIRDUPOIS WEIGHT.

For Butter and Cheese.

3 pounds = 1 clove.
56 pounds = 1 firkin.

In most Commercial Transactions and Common Dealings among Individuals.

27½ grains = 1 drachm.
16 drachms = 1 ounce (oz.).
16 ounces = 1 pound (℔.).
1 pound = 7,000 troy grains, United States standard.
25 pounds and 28 pounds = 1 quarter (qr.).
4 quarters = 1 hundredweight (cwt.).
20 hundredweight = 1 ton.

For Fish and Meat.

8 pounds = 1 stone.

For the Wool Trade.

7 pounds = 1 clove.
14 pounds = 1 stone.
2 stones = 1 tod.
6½ tods = 1 wey.
2 weys = 1 sack.
12 sacks = 1 last.

BOOK MEASURES.

1 sheet folded in—
2 leaves = a folio.
4 leaves = a quarto (4to).
8 leaves = an octavo (8vo).
12 leaves = a duodecimo (12mo).
16 leaves = a 16mo.
18 leaves = an 18mo.
24 leaves = a 24mo.
32 leaves = a 32mo.
64 leaves = a 64mo.

CIVIL ENGINEERS' MEASURES.

1 link (l) = 1 foot (ft.).
100 l (or ft.) = 1 chain.
5280 ft. (1760 yds.) = 1 mile (mi.).

COPYING MEASURES.

72 words = 1 folio, common law.
90 words = 1 folio, chancery.
100 words = 1 folio, statute law.
2 figures = 1 word, statute law.

DIVISIONS OF THE CIRCLE, OR ANGULAR MEASURE.

60 seconds = 1 minute.
60 minutes = 1 degree.
30 degrees = 1 sign.
90 degrees = 1 quadrant.
360 degrees or 12 signs = 1 circumference.

GEOGRAPHERS' AND ASTRONOMERS' MEASURES.

60″ (seconds) = 1′ (minute), or 1 geographical mile.
60′ = 1° (degree).
30° = 1 sign of the zodiac (S).
12 S = 1 great circle of the heavens.
60° = 1 sextant.
360° or 6 sextants = 1 C. circumference.
1 geographic mile = 1.15 statute mile.
3 geographic miles = 1 league (L.).
60 geographic miles, or 69.16 statute miles = degree (Deg.) of latitude or of longitude on the equator.

69.16 miles is the average degree of latitude as used by the United States Coast Survey.

LAND MEASURES.

7 92-100 inches = 1 link.
100 links = 1 chain.
10 square chains = 1 acre.
640 acres = 1 square mile or section.
36 square miles = 1 township.

MEASURES OF FINENESS OF POWDERS.

80 meshes to an inch = very fine.
60 meshes to an inch = fine.
50 meshes to an inch = moderately fine.
40 meshes to an inch = moderately coarse.
20 meshes to an inch = coarse.

MEASURES OF GOODS SOLD BY THE YARD.

2¼ inches = 1 sixteenth.
2 sixteenths or 4½ inches = 1 eighth.
2 eighths or 9 inches = 1 quarter or (qr.) fourth.
4 qrs. = 1 yard.
1 yard United States standard = 3 feet or 36 inches.

MARINERS' MEASURES.

6 feet = 1 fathom (depth at sea).
120 fathoms = 1 cable's length.
1 nautical mile or knot = 1.15 statute miles.
3 nautical miles or knots = 1 league.

MEASURES OF LENGTH.

Generally.

12 inches = 1 foot.
3 feet = 1 yard.
5½ yards = 1 rod or pole.
40 poles = 1 furlong.
8 furlongs = 1 mile.
69 1-15 miles = 1 degree of a great circle of the earth.

MEASURES OF CLOTH.

1 nail = 2¼ inches.
4 inches = 1 quarter.
4 quarters = 1 yard.
5 quarters = 1 ell.

SYSTEM OF WEIGHTS AND MEASURES USED IN THE UNITED STATES—(Continued).

Measures of Depth.

6 feet = 1 fathom.

Measure of Height of Horses.

In measuring horses, 4 inches = 1 hand, the measure being taken directly over the foreshoulder.

Measures of Paper.

24 sheets = 1 quire.
20 quires = 1 ream.
2 reams = 1 bundle.
5 bundles = 1 bale.

Measures of Solidity and Capacity.

Measures of Capacity for Commodities Sold by Heaped Measure.

2 gallons = 1 peck.
8 gallons = 1 bushel.
1 bushel United States standard = 2,150.42 cubic inches.
3 bushels = 1 sack.
12 sacks = 1 chaldron.

Measures of Capacity of Liquids, etc.

For liquids several denominations have heretofore been adopted: For beer the firkin of 9 gallons, the kidderkin of 18, the barrel of 36, the hogshead of 54, and the butt of 108 gallons. For wine or spirits there are the anker, runlet, tierce, hogshead, puncheon, pipe, butt, and tun; these are, however, rather the names of the casks in which the commodities are imported than as expressing any definite number of gallons. It is the practice to gauge all such vessels and to charge them according to their actual contents.

4 gills = 1 pint.
2 pints = 1 quart.
4 quarts = 1 gallon.
1 gallon United States standard = 231 cubic inches.
2 gallons = 1 peck.
8 gallons = 1 bushel.
8 bushels = 1 quarter.
5 quarters = 1 load.

The last four denominations are used only for goods, not liquids.

Measures of Solidity.

1728 cubic inches = 1 cubic foot.
27 cubic feet = 1 cubic yard.
1 cord stove wood = 128 cubic feet.

Measures of Surface.

144 square inches = 1 square foot.
9 square feet = 1 square yard.
30¼ square yards = 1 square perch or rod.
40 square perches = 1 rood, or ¼ of an acre.
4 roods or 160 perches (40 sq. perches) = 1 acre.
640 acres = 1 sqnare mile.

Surveyors' Measures.

7.92 inches = 1 link (l.).
100 l. = 1 chain (ch.).
80 ch. = 1 mile (mi.).
See Measures of Length, above.

Measures of Things.

12 = 1 dozen.
12 dozen = 1 gross.
12 gross = 1 great gross.

Measures of Time.

60 seconds = 1 minute.
60 minutes = 1 hour.
24 hours = 1 day.
7 days = 1 week.
28 days or 4 weeks = 1 lunar month.
28, 29, 30, or 31 days = 1 calendar month
12 calendar months = 1 year.
365 days = 1 year.
366 days = 1 leap year.

The second of time is subdivided like that of angular measure.

Measures by Weight.

The following articles are generally sold by the bushel, hundredweight, or ton, and are generally regulated by statute:

Apples, dried; barley; beans, white; beans, castor; blue grass seed; bran; buckwheat; clover seed; coal (anthracite, bituminous, cannel, stone, and all other mined coals); corn, Indian, in the ear; corn, Indian, shelled; corn meal; flax seed; hair (for plastering); hay; hemp seed; hominy; Hungarian grass seed; lime (unslaked); malt; millet seed; oats, shelled; onions; peaches, dried; peas, ground; potatoes, Irish; potatoes, sweet; rye; salt; salt, fine; timothy seed; turnips; wheat, etc.

Weights are of two kinds, avoirdupois and troy.

Troy Weight.

These are the denominations of troy weight when used for weighing gold, silver, and precious stones, except diamonds. Troy weight is also used by apothecaries in compounding medicines; and by them the ounce is divided into eight drachms, and the drachm into three scruples, so that the latter is equal to twenty grains. For scientific purposes the grain only is used, and sets of weights are used constructed in decimal progression from 10,000 grains downward to one-hundredth of a grain. The carat used for weighing diamonds is three and one-sixth grains.

24 grains = 1 pennyweight.
20 pennyweights = 1 ounce.
1 ounce = 480 grains, United States standard.
12 ounces = 1 pound.
1 pound = 5,760 grains, United States standard.

Weights and Measures for Mixing and Measuring Medicine Doses.

Solid.

60 grains make	1 drachm	ʒi
8 drachms make	1 ounce	℥i
16 ounces make	1 pound	℔

Liquid.

60 minims make	1 fluidrachm	fʒi
8 fluidrachms make	1 fluidounce	f℥i
20 fluidounces make	1 pint	Oi

It is always better to measure by minims than by drops. The size of a drop is constantly variable, while that of a minim, being measured by a graduated glass, is always the same. A fluidrachm is equal to a "teaspoonful," and a fluidounce to two "tablespoonfuls."

Suppose the dose for a child one year old is one teaspoonful, drachm, minim or grain. Then the dose for a child

2 years old is 1½ teaspoonfuls, drachms, minims or grains.
3 years old is 2 teaspoonfuls, drachms, minims or grains.
4 years old is 3 teaspoonfuls, drachms, minims or grains.
5 years old is 3½ teaspoonfuls, drachms, minims or grains.
6 years old is 4 teaspoonfuls, drachms, minims or grains.
7 years old is 4 teaspoonfuls, drachms, minims or grains.

And for a child between seven and fourteen years old it is from four to six teaspoonfuls, drachms, minims or grains, according to age.

For example: Suppose the dose of some prescription is stated to be two tablespoonfuls for a child twelve years old, but it is required to be used for a child four years old. A child twelve years old would take about six teaspoonfuls to every three that should be taken by one four years old, or in other words, twice as much; therefore, the dose to be given is one tablespoonful.

A teacup contains about	4	fluidounces	f℥iv
A wineglass contains about	2	fluidounces	f℥ii
A tablespoon contains about	½	fluidounce	f℥ss
A teaspoon contains about	1	fluidrachm	fʒi

Table for Regulating the Doses of Medicine for Children.

Take the dose for an adult as one teaspoonful:

1 year old	dose 5 drops.
2 years old	dose 7 drops.
3 years old	dose 10 drops.
4 years old	dose 15 drops.
7 years old	dose 20 drops.
14 years old	dose 30 drops.
20 years old	dose 40 drops.
From 20 to 60 years old	dose 60 drops.

SYSTEM OF WEIGHTS AND MEASURES USED IN THE UNITED STATES—(Continued).

METRIC SYSTEM OF WEIGHTS AND MEASURES.

In the year 1866 the Congress of the United States passed a bill authorizing the use of a new system of weights and measures. In this system the principal denomination is the *meter*, from which all the other denominations in all the tables are derived. Hence, this system is called the *metric system*.

The principal denomination for the measure of surface is the *are;* for the measure of capacity, the *liter;* and for weight, the *gram*.

The lower denominations in each table are tenths, hundredths, or thousandths of these; and their names are formed by prefixing *deci*, *centi*, or *milli* to the name of the principal denomination.

The higher denominations are 10, 100, 1,000, or 10,000 times the principal denomination of any table; and their names are formed by prefixing *deka, hecto, kilo*, or *myria* to the name of that principal denomination.

The weights and measures of this system are in general use in France, Belgium, Spain, and Portugal; and their use has been legalized by Great Britain, Italy, Norway, Sweden, Greece, Mexico, and most of the South American governments.

NAMES OF PRINCIPAL METRIC DENOMINATIONS.

Meter.
Are.
Liter.
Gram.

Prefixes for Higher Denominations.

Deka, 10.
Hecto, 100.
Kilo, 1,000.
Myria, 10,000.

Prefixes for Lower Denominations.

Milli, .001 of.
Centi, .01 of.
Deci, .1 of.

MEASURES OF CAPACITY.

10 milliliters =1 centiliter.
10 centiliters =1 deciliter.
10 deciliters =1 liter.
10 liters =1 dekaliter.
10 dekaliters =1 hectoliter.
10 hectoliters =1 kiloliter, or stere.
1 milliliter =.001 liter.
1 centiliter =.01 liter.
1 deciliter =.1 liter.
1 liter =1 cubic decimeter, or .908 dry quart, or 1.0567 liquid quart.
1 dekaliter = 10 liters.
1 hectoliter = 100 liters.
1 kiloliter or stere =1.000 liters.

MEASURES OF LENGTH.

10 millimeters = 1 centimeter.
10 centimeters = 1 decimeter.
10 decimeters = 1 meter.
10 meters = 1 dekameter.
10 dekameters =1 hectometer.
10 hectometers = 1 kilometer.
10 kilometers = 1 myriameter.
1 millimeter =.001 meter.
1 centimeter = .01 meter.
1 decimeter = .1 meter.
1 meter = 39.37 inches.
1 dekameter = 10 meters.
1 hectometer = 100 meters.
1 kilometer = 1,000 meters.
1 myriameter = 10,000 meters.

MEASURES OF SURFACE.

100 centares = 1 are.
100 ares =1 hectare.
1 centare = .01 are.
1 are = 100 square meters, or 119.6 square yards.
1 hectare = 100 ares.

WEIGHT.

10 milligrams = 1 centigram.
10 centigrams =1 decigram.
10 decigrams = 1 gram.
10 grams = 1 dekagram.
10 dekagrams = 1 hectogram
10 hectograms = 1 kilogram.
10 kilograms or kilos = 1 myriagram.
10 myriagrams = 1 quintal.
10 quintals = 1 millier, or tonneau.
1 milligram = .001 gram.
1 centigram = .01 gram.
1 decigram = .1 gram.
1 gram = 15.432 grains
1 dekagram = 10 grams.
1 hectogram =100 grams.
1 kilogram or 1 kilo = 1,000 grams, or 2.2046 pounds.
1 myriagram = 10 kilos.
1 quintal = 100 kilos.
1 millier = 1,000 kilos.

THE METRIC SYSTEM IN PRACTICAL USE.

Even in countries where the metric system is in every-day use many of its denominations find no place in practical calculation. This is especially so of the larger denominations. And even those that are used are used in contracted form, that is in the form, of two decimals, instead of four required for entire accuracy. Thus a metre is 3.281 feet, but in common use it is called 3.3 feet. So, in speaking of metric equivalents in a familiar way, or when one wishes to approximate their value it is usual to say that a centimetre is about a third of an inch, a metre is about a yard, a kilo is about two pounds, a litre is about a quart, a kilometre is about half a mile, etc. The metric denominations are designated by signs or contractions. Thus, the sign for metre is *m*, kilo *k*, litre *l*, millimetre *mm*, centimetre *cm*, gram, *g*, etc. The following table prepared originally for the World Almanac, shows the approximate and exact metric equivalents for denominations in common use:

1 acre	.40	hectare	.4047	1 mile	1.6	kilometres	1.609
1 bushel	35	litres	35.24	1 millimetre	.039	inch	.0394
1 centimetre	.39	inch	.3937	1 ounce (av'd)	28	grams	28.35
1 cubic centimetre	.061	cubic inch	.0610	1 ounce (Troy)	31	grams	31.10
1 cubic foot	.028	cubic metre	.0283	1 peck	8.8	litres	8.809
1 cubic inch	16	cubic centimetres	16.39	1 pint	.47	litre	.4732
1 cubic metre	35	cubic feet	35.31	1 pound	.45	kilo	.4536
1 cubic metre	1.3	cubic yards	1.308	1 quart (dry)	1.1	litres	1.101
1 cubic yard	.76	cubic metre	.7645	1 quart (liquid)	.95	litre	.9464
1 foot	30	centimetres	30.48	1 sq. centimetre	.15	sq. inch	.1550
1 gallon	3.8	litres	3.785	1 sq. foot	.093	sq. metre	.0929
1 grain	.065	gram	.0648	1 sq. inch	6.5	sq. centimetres	6.452
1 gram	15	grains	15.43	1 sq. metre	1.2	sq. yards	1.196
1 hectare	2.5	acres	2.471	1 sq. metre	11	sq. feet	10.76
1 inch	25	millimetres	25.40	1 sq. yard	.84	sq. metre	.8361
1 kilo	2.2	pounds	2.205	1 ton (2,000 lbs.)	.91	metric ton	.9072
1 kilometre	.62	mile	.6214	1 ton (2,240 lbs.)	1	metric ton	1.017
1 litre	.91	quart dry)	.9081	1 ton (metric)	1.1	ton (2,000 lbs.)	1.102
1 litre	1.1	quarts (liq'd)	1.057	1 ton metric	.98	ton (2,240 lbs.)	.9842
1 metre	3.3	feet	3.281	1 yard	.91	metre	.9144

Practical Poultry Raising on the Farm.

U. S. Department of Agriculture.

Value of Crop.—The poultry and egg crop constitutes in the aggregate one of the most important and valuable products of American agriculture, the annual output and stock on hand representing the enormous sum of $690,000,000; and the conditions are capable of indefinite expansion. The consumption and export of eggs alone exceed 1,000,000,000 dozens annually, and of a value estimated at $144,000,000.

Improvement of Breeds.—The improvement of common poultry should begin by breeding from birds selected for their shape, size and productiveness. Standard breeds have been brought to a higher plane of development by extra care and more careful management, and this improvement should be maintained by continuing the conditions which brought it about.

Classification of Breeds.—The chickens of the United States may be divided into ten classes. The American class includes the Plymouth Rock, Wyandotte, Java, American Dominique and Jersey Blue. The Asiatic class embraces the Brahma, Cochin and Langshan. The Mediterranean class includes the Leghorn, Minorca, Andalusian and Spanish. The Polish class includes the White Crested, Black, Golden, Silver, White and Bearded Golden, Bearded White, Bearded Silver and Buff Laced. The Hamburg class includes the Hamburgs, Red Caps and Campines. The Houdans, Crêve Coeurs and La Fleche constitute the French class. The game and game Bantam class is made up of Black-Breasted Red, Brown Red, Golden and Silver Duckwing, Red Pyle, White, Black, Birchen, Cornish and Indian games and Malays. The Bantams, other than games, include the Sebrights, Rose Combed, Booted, White, Cochin, Japanese and Polish. The English class includes the Dorkings and the Orpingtons, but lately introduced into the United States. The miscellaneous class comprises the Russian, Sumatra, Silky, Sultan, Frizzles, Rumpless, Yokohama and Naked Neck.

Further Classification.—Classified according to their prominent characteristics, the domestic fowls may be divided, more or less arbitrarily, into (1) the egg breeds, or those breeds which are the greatest egg producers; (2) the meat breeds, or those breeds whose chief value is as meat producers; (3) the general utility fowls, and (4) the fancy breeds.

Egg Breeds.—The egg breeds are small and medium-sized fowls. They are generally poor setters, are easily frightened, and are very nervous in movement. In this class are the Leghorns, Spanish, Minorcas and Hamburgs.

Meat Breeds.—The meat breeds embrace those fowls which are heavy-bodied, such as the Brahma, Cochin and Langshan. They are generally poor layers, but of gentle disposition and good setters.

General Utility Fowls.—The general utility fowls are of medium size and furnish fair quantities of eggs and meat. The Plymouth Rock and Wyandotte belong to this class.

Fancy Breeds.—The fancy breeds, reared chiefly on account of their appearance, are, as a rule, poor egg and meat producers. The Polish, games, bantams, and some miscellaneous breeds are the chief representatives of this class.

Most Popular Breeds.—The most popular fowls in the United States are the American breeds known as the Plymouth Rocks and Wyandottes. They are of medium size, good as broilers, good as roasters, good egg producers; the hens are good setters and good mothers, and for these reasons they are known as general purpose fowls. In barred, buff and white Plymouth Rocks, and the white, buff, silver, golden, black and partridge Wyandottes, there is a sufficient range of color to meet almost any taste.

Egg Producers.—For farmers who desire fowls more particularly for egg production, the Mediterranean breeds, particularly the Leghorns, Minorcas and Spanish, are to be recommended. The birds of these breeds are smaller, more active and greater foragers than the Rocks or Wyandottes, and as layers they are unsurpassed. Should it be desirable, on the other hand, to raise heavier birds than the Plymouth Rocks, we should naturally turn to the Asiatic breeds, which include the Brahmas, Cochins and Langshans.

The standard weights of these different classes are as follows:

BREEDS.	COCKS. LBS.	HENS. LBS.
Plymouth Rocks	9½	7½
Wyandottes	8½	6½
Light Brahmas	12	9½
Dark Brahmas	11	8½
Cochins	10½ to 11	8½
Langshans	10	7
Minorcas	8	6½
Spanish		6½

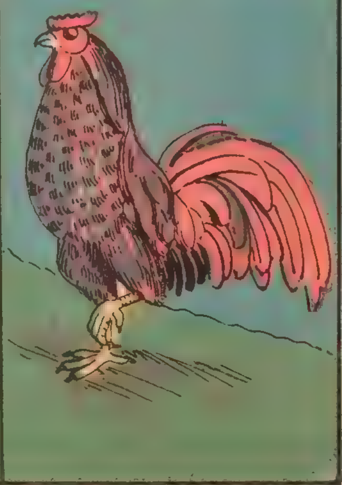
NATIVITY OF FRUITS AND VEGETABLES

ALMOND	AFRICA, ASIA
APPLE	ASIA, EUROPE
APRICOT	ARABIA
BANANA	ALL TROPICS
BARBERRY	ASIA, EUROPE
BEAN	BOTH HEMISPHERES
BEET	EUROPE
BLACKBERRY	EUROPE, AMERICA
BLUEBERRY	AMERICA
BUTTERNUT	AMERICA
CABBAGE	EUROPE
CAULIFLOWER	EUROPE
CHERRY	ASIA MINOR
CHESTNUT	ASIA, AMERICA
CITRON	ASIA
CRANBERRY	BOTH HEMISPHERES
CUCUMBER	ASIA
CURRANT	NORTHERN EUROPE
DEWBERRY	NORTH AMERICAN
EGG PLANT	AFRICA, CHINA
FIG	ASIA
FILBERT	EUROPE
GOOSEBERRY	EUROPE, ASIA
GRAPE	PERSIA
HICKORY NUT	AMERICA
HUCKLEBERRY	AMERICA
LEEK	EGYPT
LEMON	ASIA
LETTUCE	BOTH HEMISPHERES
LIME	ASIA
MEDLAR	EUROPE, ASIA
MELON	PERSIA
MULBERRY	ASIA
NECTARINE	INDIA
OLIVE	ASIA, EUROPE
ONION	AFRICA, ASIA
ORANGE	AFRICA
PEA	BOTH HEMISPHERES
PEACH	PERSIA, CHINA
PEAR	ASIA, EUROPE
PECAN	NORTH AMERICA
PINEAPPLE	TROPICAL AMERICA
PLUM	ASIA MINOR
POMEGRANITE	CHINA
POTATO	AMERICA
PUMPKIN	UNCERTAIN
QUINCE	EUROPE
RADISH	EUROPE, ASIA
RASBERRY	ASIA MINOR
SHADDOCK	CHINA
SQUASH	AMERICA
STRAWBERRY	BOTH HEMISPHERES
TOMATO	SOUTH AMERICA
TURNIP	NORTHERN EUROPE
WALNUT	PERSIA, AMERICA
WATERMELON.	TROPICAL CLIMATES

BEST POULTRY BREEDS.

As Recommended by the U.S. Dept. of Agriculture.

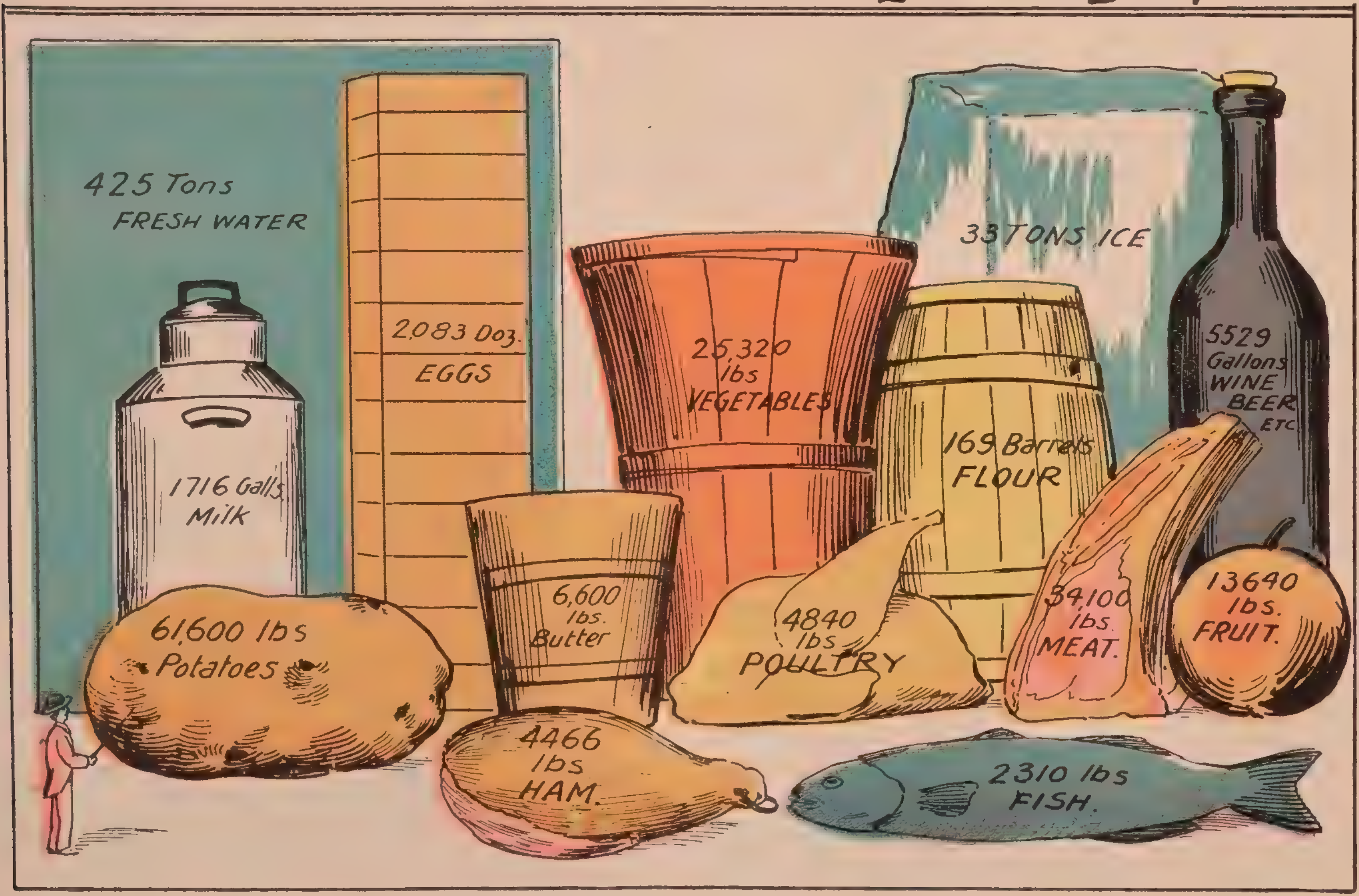
ORIGIN	BREEDS	WEIGHT OF MATURED COCK	WEIGHT OF MATURED HEN	NO. OF EGGS ANNUALLY	NO. OF EGGS TO THE POUND.
AMERICAN	PLYMOUTH ROCKS	9½ lbs.	7½ lbs.	175	8
AMERICAN	WYANDOTTES	8½	6½	180	8
MEDITERRANEAN	MINORCAS	8	6½	180	8
MEDITERRANEAN	SPANISH	8	6½	170	8
MEDITERRANEAN	LEGHORN, BLACK	5	4	200	10
MEDITERRANEAN	LEGHORN, BROWN	5	4	200	10
ASIATIC	BRAHMAS, LIGHT	12	9½	160	7
ASIATIC	BRAHMAS, DARK	11	8½	160	7
ASIATIC	COCHINS	11	8½	170	8
ASIATIC	LANGSHANS	10	7	175	8



THE GREAT WHEAT PRODUCING STATES.

	ACRES	BUSHELS	VALUE
KANSAS.	4,660,376	82,488,655	$45,368,760
MINNESOTA	4,905,643	51,509,252	$32,450,829
CALIFORNIA	2,771,226	28,543,628	$16,555,304
WASHINGTON	1,067.943	25,096,661	$12,799,297
NEBRASKA	2,066,825	24,801,900	$13,145,007
TEXAS	1,271,517	23,395,913	$14,973,384
IOWA	1,397,322	21,798,223	$12,860,952
PENNSYLVANIA	1,502,321	20,281,334	$14,602,560
SOUTH DAKOTA	2,920.244	20,149,634	$11,686,817
MISSOURI	1,507,787	18,846,713	$11,873,429
ILLINOIS	1,383,236	17,982,068	$11,508,524
OREGON	1,173,769	16,198,012	$8,908,907
NORTH DAKOTA	2,639,023	13,176,213	$7,642,204

Provisions of Transatlantic Liner for a Single Six Day Trip.



The Leghorns are smaller than the Minorcas and Spanish, and have not been given standard weights.

The Rhode Island Red is a promising general purpose breed, resembling in size and form the Plymouth Rock. It has been developed by crossing and selection, but has not yet been admitted as a standard breed.

Poultry Houses.—These need not be elaborate nor expensive, but should be located on soil that is well drained and dry. A gravelly knoll is best, or if this cannot be had a few inches of sand or gravel should be sprinkled on the soil to prevent the formation of mud. If the house be sheltered from the north or northwest winds by a group of evergreens, it will prove a decided advantage in colder climates.

Roosts.—Roosts should be nearly flat or slightly rounded surfaces, free from cracks in which vermin may hide. They may be of 2x3 inch scantling put up so that they can be easily removed for cleaning.

Nests.—The simplest form of nest is a box on the floor of the poultry house. A more concealed or dark nest may become necessary, when hens fight one another.

The Floor.—This is the most difficult problem about a chicken house. Perhaps, all in all, a good wooden floor covered with a few inches of dry earth is best. It should be elevated sufficiently to admit of ventilation beneath.

Space.—If houses are without sheds each adult bird should be allowed from six to fifteen square feet of space. This can be reduced by one-half where there are sheds; and still further where there are open field runs. Yards should allow of 50 to 150 square feet for each adult bird. Poultry houses should be well ventilated, but drafts avoided.

Coops.—A liberal supply of coops should be provided for hens with chicks. The feed troughs should be narrow.

Special Lines.—There are certain special lines of farming with which poultry raising can always be profitably connected, because of the plenty and cheapness of the food supply. Among these are dairying, fruit farming and market gardening.

Foods.—These should be prepared and fed with a view to productiveness of both eggs and meat, but especially the former in the winter time.

Animal Meal Rations.—These have been largely experimented with by practical poultry raisers, in comparison with vegetable food rations, and have found favor in many sections. Such a ration is composed of the following feeding stuffs: Cornmeal, 12 parts; wheat flour, 4 parts; ground oats, 2 parts; wheat bran, 1 part; wheat middlings, 1 part; pea meal, 1 part; old process linseed meal, 1 part; with wheat, corn, animal meal and fresh bone.

Vegetable Food Ration.—This is also a great favorite. It is composed of peameal, 6 parts; old process linseed meal, 4 parts; wheat bran, 2 parts; ground oats, 2 parts; gluten meal, 2 parts; wheat middlings, 1 part; cornmeal, 1 part; with wheat, corn and skim milk or curd. Both the above rations are especially adapted for the growth of chicks.

General Poultry Facts.—Under favorable conditions the following results as to size of fowl, male and female, and number and weight of eggs, may be expected of the various breeds and classes by the poultry raiser:

Kind of Fowl.	Weight of full grown male.	Weight of full grown female.	No. of eggs annually.	No. of eggs to the pound.
Brahmas, light	12	9½	160	7
Brahmas, dark	11	8½	160	7
Cochins, black	10½	8½	170	8
Cochins, buff	11	8½	130	8
Cochins, white	11	9	150	8
Common	4½	4	160	9
Dorkings	7	6	130	8
Dominques	6	5	170	9
Games	7	5	170	9
Hamburgs	5	4	180	10
Houdans	7½	5	170	9
Leghorns, black	5	4	200	10
Leghorns, brown	5	4	200	10
Leghorns, dominique	5	4	200	10
Leghorns, white	5	4	200	10
Plymouth Rocks	9	7	175	8
Polish	6	4	170	9
Spanish, black	8	6	170	8
Wyandottes	8½	6½	180	8
Ducks, common	3	3	90	8
Ducks, Aylesbury	7	6	80	6
Ducks, Pekin	6	5½	75	8
Geese, common	8	7	20	4
Geese, African	16	14	30	4
Geese, Embden	18	15	20	3½
Geese, Toulouse	20	18	35	3½
Turkeys, common	12	10	45	7
Turkeys, black	15	12	45	6
Turkeys, bronze	22	19	45	6
Turkeys, buff	16	14	45	6
Turkeys, Narragansett	22	14	50	6

Incubators.—There are now about sixty-five incubator factories in the United States and Canada. The incubator has revolutionized commercial poultry culture. But for it the industry could never have reached its present magnitude. The incubator is no longer an experiment; it has come to stay and has increased the chances of success, and progress is made more rapid and certain.

Assorting and Grading Eggs.—This is done by candling and is a trade. All large commission houses employ expert candlers. The method consists in inclosing a gaslight in a metal box from which the light is thrown as from a searchlight. The egg, held between the thumb and forefinger, is placed in the light and turned round and round and thoroughly inspected.

A fresh egg presents a yellow glow; the shell is full, the yolk in the middle, and the white is perfectly transparent.

A second-class egg is shrunken so as to leave an air chamber at the small end.

A third-class egg is streaked with red, or the yolk seems to be breaking up.

A bad egg contains black spots; it is opaque, no light being visible through its density.

Advice to Beginners.—Our universities are turning out hundreds of intelligent young men each year. It is a puzzle to many of them what shall be their chosen field of work. Particularly is this true of many who are possessed of limited means and without influential friends to assist them to a paying position. To these latter particularly I would say: Study the science and art of incubation, brooding, and egg production. There is no other industry which offers a more independent and enjoyable way of earning a livelihood. Become a specialist in this line; give the subject the same study and time that you would expend in preparing for any other profession; study the experiences of others in good poultry journals; learn how to produce first-class stock in every way. Great success will be best attained by those who have a natural love for and devotion to this kind of labor.

WHOLESALE PRICE OF EGGS PER DOZEN—1900.

[Department of Agriculture Report.]

1900.	New York.		Cincinnati.		Chicago.		St. Louis.	
	Average Best Fresh.				Fresh.		Average Best Fresh.	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.
January	17	26	15	19	13¾	20	12½	17¼
February	13½	19	12½	14	12	16	10½	14
March	12	17	9½	14	10	16	8¾	15½
April	12	13½	9½	11	10¼	11½	8¾	11¼
May	12½	14½	10½	11	10¾	11½	9½	10
June	13	15	10½	10½	10	11½	8	10
July	13	17	9	10	10½	11½	7½	9½
August	14	18	9	12	11½	13½	9½	11½
September	12½	14	11¼	15	13	16	16	19½
October	19	21	14	15	15½	17½	14	16½
November	20	27	18	20	18	23	16	18½
December	23	29	18	22	20	26	18	23

National Forest Reserves.

Number and Location.—There are (1903) fifty-four forest reserves in the United States, created by Presidential proclamation. They embrace 60,175,765 acres, and are located chiefly west of the Mississippi river. The Interior Department has charge of them.

Object of Forest Reserves.—The object of setting land aside for forest reserves is—

1. To protect a growth of timber on land which is not fit to grow other crops and under conditions where no such protection is assured or can be supplied by private persons or local authorities.

2. To keep a growth of vegetation, especially of timber, on mountain lands which would otherwise wash and gully.

The timber and other vegetation protects the ground against this erosion or washing away, and in doing so it performs two things, both very important functions:

It prevents the rain and snow water from rushing off as fast as it otherwise would and thus prevents *floods.*

It maintains a pervious layer of earth into which the water can soak and be *stored* up for the summer months, when, in most Western States, it is needed for irrigation.

How Created.—Forest reserves have been and are created from lands (nearly all mountain lands) unfit for agriculture for reasons of altitude and consequent climate, usually reinforced by poverty or insufficiency of soil. These lands generally bear a stand of timber or indicate that they have borne such and are likely to be restocked with forests if protected. Where these mountain forests have not been reserved and have passed into private ownership their history has generally been that of the Northern pineries and other forest areas.

Gazetteer of Government Records

THE WONDERFUL STORY OF
OUR PEOPLE & POPULATION

Education and Religion

SCHOOLS, SCHOLARS, COLLEGES
CHURCHES AND WORSHIPPERS

THE PEOPLE WE WERE
THE PEOPLE WE ARE:

Sexes, Color, Nativity; Where We Live, What We Do. School, Church and Library Facts and Figures. ❧ ❧

A Clear and Succinct View of

Native and Foreign Population
Indian Population
Population by Color, All Censuses
Dwellings and Families in U. S.
How the People are Occupied
Population per Sq. Mile
Growth of Cities, Boroughs and Towns
Immigration Since 1820
Immigration by Nationalities
Males of Voting Age

EDUCATION AND RELIGION

Common Schools in U. S.
Persons of School Age
Leading Colleges and Universities
Illiteracy in the U. S.
Newspapers in the U. S.
Libraries in the U. S.
Largest Libraries
Book Production in U. S.
Printing and Publishing Business
Circulation of Newspapers
Religious Denominations
Membership of Each
Auxiliary Religious Bodies

The Why and Wherefore of Our Education and Morals eloquently told in these pages. No guesswork. No theory. All official fact.

Statistics of Population.

NATIVE AND FOREIGN BORN POPULATION OF THE UNITED STATES

[From the Census Reports.]

States and Territories.	Native born.			Foreign born.		
	1880.	1890.	1900.	1880.	1890.	1900.
Alabama	1,252,771	1,498,624	1,814,105	9,734	14,777	14,592
Alaska	....	15,381	50,931	....	16,671	12,661
Arizona	24,391	69,448	98,698	16,049	18,795	24,233
Arkansas	792,175	1,113,947	1,297,275	10,350	14,264	14,289
California	571,820	847,089	1,117,813	292,847	366,309	367,240
Colorado	154,537	329,259	448,545	39,790	83,990	91,155
Connecticut	492,708	562,657	670,210	129,992	183,601	238,210
Delaware	137,140	155,332	170,925	9,468	13,161	13,810
District of Columbia	160,502	211,622	258,599	17,122	18,770	20,119
Florida	259,584	368,490	504,710	9,909	22,932	23,832
Georgia	1,531,616	1,825,216	2,203,928	10,564	12,137	12,403
Hawaii	....	48,117	63,221	....	41,873	90,780
Idaho	22,636	71,092	137,168	9,974	17,456	24,604
Illinois	2,494,295	2,984,005	3,854,803	583,576	842,347	966,747
Indiana	1,834,123	2,046,199	2,374,341	144,178	146,205	142,121
Indian Territory	....	180,182	387,202	....	....	4,858
Iowa	1,362,965	1,588,228	1,925,933	261,650	324,069	305,920
Kansas	886,010	1,280,270	1,343,810	110,086	147,838	126,685
Kentucky	1,589,173	1,799,279	2,096,925	59,517	59,356	50,249
Louisiana	885,800	1,068,841	1,328,722	54,146	49,747	52,903
Maine	590,053	582,125	601,136	58,883	78,961	93,330
Maryland	852,137	948,094	1,094,110	82,806	94,296	93,934
Massachusetts	1,339,594	1,581,810	1,959,022	443,491	657,137	846,324
Michigan	1,248,429	1,550,010	1,879,329	388,508	543,880	541,653
Minnesota	513,097	842,927	1,246,076	267,676	467,356	505,318
Mississippi	1,122,388	1,281,648	1,543,289	9,209	7,952	7,981
Missouri	1,956,802	2,444,316	2,890,286	211,578	234,869	216,379
Montana	27,638	99,828	176,262	11,521	43,096	67,067
Nebraska	354,988	860,114	888,953	97,414	202,542	177,347
Nevada	36,613	32,649	32,242	25,653	14,706	10,093
New Hampshire	300,697	304,190	323,481	46,294	72,340	88,107
New Jersey	909,416	1,115,958	1,451,785	221,700	328,975	431,884
New Mexico	111,514	149,023	181,685	8,051	11,259	13,625
New York	3,871,492	4,432,124	5,368,469	1,211,379	1,571,050	1,900,425
North Carolina	1,396,008	1,614,247	1,889,318	3,742	3,702	4,492
North Dakota	18,674	109,522	206,055	18,235	81,461	113,091
Ohio	2,803,119	3,213,036	3,698,811	394,943	459,293	458,734
Oklahoma	....	75,735	382,651	....	2,740	15,680
Oregon	144,265	260,387	347,788	30,503	57,317	65,748
Pennsylvania	3,695,062	4,412,393	5,316,865	587,829	845,720	985,250
Rhode Island	202,538	239,201	294,037	73,993	106,305	134,519
South Carolina	987,891	1,144,879	1,334,788	7,686	6,270	5,528
South Dakota	64,708	257,545	313,062	33,560	91,055	88,508
Tennessee	1,525,657	1,747,489	2,002,870	16,702	20,029	17,746
Texas	1,477,133	2,082,571	2,869,353	114,616	152,956	179,357
Utah	99,969	157,715	222,972	43,994	53,064	53,777
Vermont	291,327	288,334	298,894	40,959	44,088	44,747
Virginia	1,497 869	1,637,606	1,834,723	14,696	18,374	19,461
Washington	59,313	267,227	406,739	15,803	90,005	111,364
West Virginia	600,192	743,911	936,349	18,265	18,883	22,451
Wisconsin	910 072	1,174,131	1,553,071	405,425	519,199	515,971
Wyoming	14,939	47,642	75,116	5,850	14,913	17,415
The United States	43,475,840	53,761,665	65,843,302	6,679,943	9,308,091	10,460,085

INDIAN POPULATION AND AFFAIRS.

The total Indian population of the United States is approximately 269,306, of which the New York Indians and those known as the Five Civilized Tribes embrace 89,732, leaving 179,574 occupying 156 reservations, having 55,127,000 acres, outside of New York and the Indian Territory.

The New York Indians are located on eight small reservations in New York State, of an area of 88,000 acres. They number about 5,232. The Cherokees, Chickasaws, Choctaws, Creeks and Seminoles comprise the Five Civilized Tribes of Indian Territory. They number about 84,500, and control about 19,475,614 acres of land. Non-citizen whites to the number of 300,000 live within the boundaries of said tribes.

Indians to the number of 1,500 were (1902) in the employ of the Government in various capacities, and were paid salaries amounting to $319,810. In the Indian School service 627 Indians were employed, and paid salaries amounting to $243,083.

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,

[From Reports of the Census.]

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
Maine:												
White	96,002	150,901	227,736	297,340	398,263	500,438	581,813	626,952	625,309	647,485	659,896	693,147
Colored	538	818	969	929	1,192	1,355	1,356	1,327	1,606	1,451	1,190	1,319
Total	96,540	151,719	228,705	298 269	399,455	501,793	583,169	628,279	626,915	648,936	661,086	694,466
New Hampshire:												
White	141,097	182,998	213,490	243,236	268,721	284,036	317,456	325,579	317,720	346,306	375,916	410,926
Colored	788	860	970	786	607	538	520	494	580	685	614	662
Total	141,885	183,858	214,460	244,022	269,328	284,574	317,976	326,073	318,300	346,991	376,530	411,588
Vermont:												
White	85,154	153,908	217,145	235,063	279,771	291,218	313,402	314,389	329,627	331,229	331,485	342,815
Colored	271	557	750	903	881	730	718	709	924	1,057	937	826
Total	85,425	154,465	217,895	235,966	280,652	291,948	314,120	315,098	330,551	332,286	332,422	343,641
Massachusetts:												
White	373,324	416,393	465,303	516,419	603,359	729,030	985,450	1,221,464	1,443,404	1,764,388	2,216,799	2,773,372
Colored	5,463	6,452	6,737	6,740	7,049	8,669	9,064	9,602	13,947	18,697	22,144	31,974
Total	378,787	422,845	472,040	523,159	610,408	737,699	994,514	1,231,066	1,457,351	1,783,085	2,238,943	2,805,346
Rhode Island:												
White	64,470	65,438	73,214	79,413	93,621	105,587	143,875	170,668	212,373	270,043	338,113	419,464
Colored	4,355	3,684	3,717	3,602	3,578	3,243	3,670	3,952	4,980	6,488	7,393	9,092
Total	68,825	69,122	76,931	83,015	97,199	108,830	147,545	174,620	217,353	276,531	345,506	428,556
Connecticut:												
White	232,374	244,721	255,179	267,181	289,603	301,856	363,099	451,520	527,786	611,153	733,956	893,194
Colored	5,572	6,281	6,763	7,967	8,072	8,122	7,693	8,627	9,668	11,547	12,302	15,226
Total	237,946	251,002	261,942	275,148	297,675	309,978	370,792	460,147	537,454	622,700	746,258	908,420
New York:												
White	314,142	557,731	918 699	1,332,744	1,873,663	2,378,890	3,048,325	3,831,730	4,330,678	5.017,767	5,927,761	7,169,662
Colored	25,978	31,320	40,350	39,367	44,945	50,031	49,069	49,005	52,081	65,104	70,092	99,232
Total	340,120	589,051	959,049	1,372,111	1,918,608	2,428,921	3,097,394	3.880,735	4,382,759	5,082,871	5,997,853	7,268,894
New Jersey:												
White	169,954	194,325	226,868	257,409	300,266	351,588	465,509	646,699	875,438	1,092,263	1,397,295	1,813,825
Colored	14,185	16,824	18,694	20,017	20,557	21,718	24,046	25,336	30,658	38,853	47,638	69,844
Total	184,139	211,149	245,562	277,426	320,823	373,306	489,555	672,035	906,096	1,131,115	1,444,933	1,883,669
Pennsylvania:												
White	424,099	586,095	786,804	1,017,094	1,309,900	1,676,115	2,258,160	2,849,266	3,456,657	4,197,356	5,150,418	6,145,270
Colored	10,274	16,270	23,287	30,413	38,333	47,918	53,626	56,949	65,294	85,535	107,596	156,845
Total	434,373	602,365	810,091	1,047,507	1,348,233	1,724,033	2,311,786	2,906,215	3,521,951	4.282,891	5,258,014	6,302,115
Total North Atlantic Div.:												
White	1,900,616	2,552,510	3,384,438	4,245,899	5,417,167	6,619,758	8,477,089	10,438,267	12,118,992	14,277,990	17,131,639	20,661,675
Colored	67,424	83,066	102,237	110,724	125,214	142,324	149,762	156,001	179,738	229,417	269,906	385,020
Total	1,968,040	2,635,576	3,486,675	4,356,623	5,542,381	6,761,082	8,626,851	10,594,268	12,298,730	14,507,407	17,401,545	21,046,695

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,–(Continued).

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
Delaware:												
White	46,310	49,852	55,361	55,282	57,601	58,561	71,169	90,589	102,221	120,166	140,107	154,038
Colored	12,786	14,421	17,313	17,467	19,147	19,524	20,363	21,627	22,794	26,442	28,386	30,697
Total	59,096	64,273	72,674	72,749	76,748	78,085	91,532	112,216	125,015	146,608	168,493	184,735
Maryland:												
White	208,649	216,326	235,117	260,223	291,108	318,204	417,943	515,918	605,503	724,713	826,733	952,980
Colored	111,079	125,222	145,429	147,127	155,932	151,815	165,091	171,131	175,391	210,230	215,657	235,064
Total	319,728	341,548	380,546	407,350	447,040	470,019	583,034	687,049	780,894	934,943	1,042,390	1,188,044
District of Columbia:												
White	....	10,066	16,079	22,614	27,563	30,657	37,941	60,764	88,296	118,028	154,820	192,016
Colored	....	4,027	7,944	10,425	12,271	13,055	13,746	14,316	43,404	59,596	75,572	86,702
Total	....	14,093	24,023	33,039	39,834	43,712	51,687	75,080	131,700	177,624	230,392	278,718
Virginia:												
White	442,117	514,280	551,514	603,085	694,300	740,968	894,800	1,047,411	712,322	880,949	1,020 542	1,193,462
Colored	305,493	365,920	423,086	462,031	517,105	498,829	526,861	548,907	512,841	631,616	635,438	660,722
Total	747,610	880,200	974,600	1,065,116	1,211,405	1,239,797	1,421,661	1,596,318	1,225,163	1 512,565	1,655,980	1,854,184
West Virginia:												
White	....	....	....	....	....	....	....	....	424,034	592.571	730,104	915,301
Colored	....	....	....	....	....	....	....	....	17,980	25,886	32,690	43,499
Total	....	....	....	....	....	....	....	....	442,014	618,457	762,794	958,800
North Carolina:												
White	288,204	337,764	376,410	419,200	472,843	484,870	553,028	631,100	679,711	868,473	1,056,929	1,269,341
Colored	105,547	140,339	179,090	219,629	265,144	268,549	316,011	361,522	391,650	531,277	561 018	624,469
Total	393,751	478,103	555,500	638,829	737,987	753,419	869,039	992,622	1,071,361	1,399,750	1,617,947	1,893,810
South Carolina:												
White	140,178	196,255	214,196	237,440	257,863	259,084	274,563	291,388	289,792	391,245	462,215	557,995
Colored	108,895	149,336	200,919	265,301	323,322	335,314	393,944	412,320	415,814	604,332	688,934	782,321
Total	249,073	345,591	415,115	502,741	581,185	594,398	668,507	703,708	705,606	995,577	1,151,140	1,340,316
Georgia:												
White	52,886	102,261	145,414	189,566	296,806	407,695	521,572	591,588	638,967	817,047	978,538	1,181,518
Colored	29,662	60,425	107,019	151,419	220,017	283,697	384,613	465,698	545,142	725,133	858,815	1,034,813
Total	82,548	162,686	252,433	340,985	516,823	691,392	906,185	1,057,286	1,184,109	1,542,180	1,837,353	2,216,331
Florida:												
White	....	....	....	....	18,385	27,943	47,203	77,747	96,059	142,803	225,242	297,812
Colored	....	....	....	....	16,345	26,534	40 242	62,677	91,689	126,690	166,180	230,730
Total	....	....	....	....	34,730	54,477	87,445	140,424	187,748	269,493	391,422	528,542
Total South Atlantic Div.:												
White	....	1,426,804	1,594,091	1,787,410	2,116.469	2,327,982	2,818,219	3,306,505	3,636,905	4,655,995	5,595.230	6,714,363
Colored	673,462	859,690	1,080,800	1,273,399	1,529,283	1,597,317	1,860,871	2,058,198	2,216,705	2,941,202	3,262,690	3,729,017
Total	1,851,806	2,286,494	2,674,891	3,060,809	3,645,752	3,925,299	4,679,090	5,364,703	5,853,610	7,597,197	8,857,920	10,443,380
Ohio:												
White	....	45,028	228,861	576,572	928,329	1,502,122	1,955,050	2,302,838	2,602,047	3,018,162	3,585,203	4,060,644
Colored	....	337	1,899	4,723	9,574	17,345	25,279	36,673	63,213	79,900	87,113	96,901
Total	....	45,365	230,760	581,295	937,903	1,519,467	1,980,329	2,339,511	2,665,260	3,198,062	3,672,316	4,157,545

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,-(Continued).

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
Indiana:												
White	....	5,343	23,890	145,758	339,399	678,698	977,154	1,339,000	1,656,077	1,939,073	2,147,189	2,458,957
Colored	....	298	630	1,420	3,632	7,168	11,262	11,428	24,560	39,228	45,215	57,505
Total	....	5,641	24,520	147,178	343,031	685,866	988,416	1,350,428	1,680,637	1,978,301	2,192,404	2,516,462
Illinois:												
White	....	....	11,501	53,788	155,061	472,254	846,034	1,704,323	2,511,129	3,031,503	3,769,323	4,736,472
Colored	....	....	781	1,374	2,384	3,929	5,436	7,628	28,762	46,368	57,028	85,078
Total	....	....	12,282	55,162	157,445	476,183	851,470	1,711,951	2,539,891	3,077,871	3,826,351	4,821,550
Michigan:												
White	....	....	4,618	8,591	31,346	211,560	395,071	742,314	1,172,210	1,621,837	2,078,666	2,405,166
Colored	....	....	144	174	293	707	2,583	6,799	11,849	15,100	15,223	15,816
Total	....	....	4,762	8,765	31,639	212,267	397,654	749,113	1,184,059	1,636,937	2,093,889	2,420,982
Wisconsin:												
White	....	....	....	....	....	30,749	304,756	774,710	1,052,557	1,312,795	1,684,436	2,066,500
Colored	....	....	....	....	....	196	635	1,171	2,113	2,702	2,444	2,542
Total	....	....	....	....	....	30,945	305,391	775,881	1,054,670	1,315,497	1,686,880	2,069,042
Minnesota:												
White	....	....	....	....	....	....	6,038	171,764	438,947	779,209	1,298,143	1,746,435
Colored	....	....	....	....	....	....	39	259	759	1,564	3,683	4,959
Total	....	....	....	....	....	....	6,077	172,023	439,706	780,773	1,301,826	1,751,394
Iowa:												
White	....	....	....	....	....	42,924	191,881	673,844	1,188,258	1,615,099	1,901,211	2,219,160
Colored	....	....	....	....	....	188	333	1,069	5,762	9,516	10,685	12,693
Total	....	....	....	....	....	43,112	192,214	674,913	1,194,020	1,624,615	1,911,896	2,231,853
Missouri:												
White	....	....	17,227	55,988	114,795	323,888	592,004	1,063,509	1,603,224	2,023,030	2,529,000	2,945,431
Colored	....	....	3,618	10,569	25,660	59,814	90,040	118,503	118,071	145,350	150,184	161,234
Total	....	....	20,845	66,557	140,455	383,702	682,044	1,182,012	1,721,295	2,168,380	2,679,184	3,106,665
North Dakota:												
White	....	....	....	....	....	....	....	4,837	14,087	134,776	182,346	318,860
Colored	....	....	....	....	....	....	....	....	94	401	373	286
Total	....	....	....	....	....	....	....	4,837	14,181	135,177	182,719	319,146
South Dakota:												
White	....	....	....	....	....	....	....	....	....	....	328,267	401,105
Colored	....	....	....	....	....	....	....	....	....	....	541	465
Total	....	....	....	....	....	....	....	....	....	....	328,808	401,570
Nebraska:												
White	....	....	....	....	....	....	....	78,759	122,204	450,017	1,049,997	1.060 041
Colored	....	....	....	....	....	....	....	82	789	2.385	8,913	6,259
Total	....	....	....	....	....	....	....	28 841	122,993	452,402	1,058,910	1,066,300
Kansas:												
White	....	....	....	....	....	....	....	106,579	347,291	952,989	1,377,386	1,418,492
Colored	....	....	....	....	....	....	....	627	17,108	43,107	49,710	52,003
Total	....	....	....	....	....	....	....	107,206	364,399	996,096	1,427,096	1,470,495

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,-(Continued).

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860	1870.	1880.	1890.	1900.
Total North Central Div.:												
White	....	50,371	286,097	840,697	1,568,930	3,262,195	5,267,988	8,912,477	12,708,021	16,978,490	21,931,167	25,837,263
Colored	....	635	7,072	18,260	41,543	89,347	135,607	184,239	273,080	385,621	431,112	495,741
Total	....	51,006	293,169	858,957	1,610,473	3,351,542	5,403,595	9,096,716	12,981,111	17,364,111	22,362,279	26,333,004
Kentucky:												
White	61,133	179,873	324,237	434,644	517,787	590,253	761,413	919,517	1,098,801	1,377,239	1,590,564	1,862,468
Colored	12,544	41,082	82,274	129,491	170,130	189,575	229,992	236,167	222,210	271,451	268,071	284,706
Total	73,677	220,955	406,511	564,135	687,917	779,828	982,405	1,155,684	1,321 011	1,648,690	1,858,635	2,147,174
Tennessee:												
White	31,913	91,709	215,875	339 927	535,746	640,627	756,836	826,782	936,189	1,139,208	1,336,840	1,540,373
Colored	3,778	13,893	45,852	82,844	146,158	188,583	245,881	283,019	322,331	403,151	430,678	480,243
Total	35,691	105,602	261,727	422,771	681,904	829,210	1,002,717	1,109,801	1,258,520	1,542,359	1,767,518	2,020,616
Alabama:												
White	....	....	....	85,451	190,406	335,185	426,514	526,431	521,482	662,402	834,528	1,001,390
Colored	....	....	....	42,450	119,121	255,571	345,109	437,770	475,510	600,103	678,489	827,307
Total	....	....	....	127,901	309,527	590,756	771,623	964,201	996,992	1,262,505	1,513,017	1,828,697
Mississippi:												
White	....	5,179	23,024	42,176	70,443	179,074	295,718	353,901	383,721	481,306	547,041	643,640
Colored	....	3,671	17,328	33,272	66,178	196,577	310,808	437,404	444,201	650,291	742,559	907,630
Total	....	8,850	40,352	75,448	136,621	375,651	606,526	791,305	827,922	1,131,597	1,289,600	1,551,270
Louisiana:												
White	....	....	34,311	73,383	89,441	158,457	255,491	357,629	362,705	456,291	559,389	730,821
Colored	....	....	42,245	79,540	126,298	193,954	262 271	350,373	364,210	483,655	559,198	650,804
Total	....	....	76,556	152,923	215,739	352,411	517,762	708,002	726,915	939,946	1,118,587	1,381,625
Texas:												
White	....	....	....	....	....	....	154,034	421,294	565,104	1,198,365	1,747,352	2,427,988
Colored	....	....	....	....	....	....	58,558	182,921	253,475	393,384	488,171	620,722
Total	....	....	....	....	....	....	212,592	604,215	818,579	1,591,740	2,235,523	3,048,710
Oklahoma:												
White	....	....	....	....	....	....	....	....	....	....	58,861	379,500
Colored	....	....	....	....	....	....	....	....	....	....	2,973	18,831
Total	....	....	....	....	....	....	....	....	....	....	61,834	398,331
Arkansas:												
White	....	....	....	12,579	25,671	77,174	162,189	324,191	362,302	591,859	819,062	944,708
Colored	....	....	....	1,676	4,717	20,400	47,708	111 259	122,169	210,666	309,117	366,856
Total	....	....	....	14,255	30,388	97,574	209,897	435,450	484,471	802,525	1,128,179	1,311,564
Total South Central Div.:												
White	93,046	276,761	597,447	988,160	1,429,494	1,980,770	2,812,195	3,729,745	4,230,304	5,906,670	7,493,642	9,531,180
Colored	16,322	58,646	187,699	369,273	632,602	1,044,660	1,491,327	2,038,913	2,204 106	3,012,701	3,479,251	4,156,807
Total	109,368	335,407	785,146	1 357,433	2,062,096	3,025,430	4,303,522	5,768,658	6,434,410	8 919,371	10,972,893	13,687,987
Montana:												
White	....	....	....	....	....	....	....	....	20,412	38,813	130 669	241,806
Colored	....	....	....	....	....	....	....	....	183	346	1,490	1,523
Total	....	....	....	....	....	....	....	....	20,595	39,159	132,159	243,329

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,–(Continued).

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
Wyoming:												
White	....	....	....	....	....	....	....	....	8,935	20,491	59,783	91 591
Colored	....	....	....	....	....	....	....	....	183	298	922	940
Total	....	....	....	....	....	....	....	....	9,118	20,789	60,705	92,531
Colorado:												
White	....	....	....	....	....	....	....	34 231	39,408	181,892	405,983	531,130
Colored	....	....	....	....	....	....	....	46	456	2,435	6,215	8,570
Total	....	....	....	....	....	....	....	34.277	39,864	194,327	412,198	539,700
New Mexico:												
White	....	....	....	....	....	....	61 525	93,431	91,702	118 550	151,637	193 700
Colored	....	....	....	....	....	....	22	85	172	1,015	1 956	1,610
Total	....	....	....	....	....	....	61,547	93,516	91,874	119,565	153,593	195,310
Arizona:												
White	....	....	....	....	....	....	....	....	9,632	40,285	58,263	121,083
Colored	....	....	....	....	....	....	....	....	26	155	1,357	1,848
Total	....	....	....	....	....	....	....	....	9,658	40,440	59,620	122,931
Utah:												
White	....	....	....	....	....	....	11,330	40,214	86,668	143,731	207,317	276,077
Colored	....	....	....	....	....	....	50	59	118	232	588	672
Total	....	....	....	....	....	....	11,380	40,273	86,786	143,963	207,905	276,749
Nevada:												
White	....	....	....	....	....	....	....	6,812	42,134	61,778	45,519	42,201
Colored	....	....	....	....	....	....	....	45	357	488	242	134
Total	....	....	....	....	....	....	....	6,857	42,491	62,266	45,761	42,335
Idaho:												
White	....	....	....	....	....	....	....	....	14,939	32,557	84,184	161,479
Colored	....	....	....	....	....	....	....	....	60	53	201	293
Total	....	....	....	....	....	....	....	....	14,999	32,610	84,385	161 772
Washington:												
White	....	....	....	....	....	....	....	11,564	23,748	74,791	347,788	515,589
Colored	....	....	....	....	....	....	....	30	207	325	1,602	2,514
Total	....	....	....	....	....	....	....	11,594	23,955	75,116	349,390	518,103
Oregon:												
White	....	....	....	....	....	....	13,087	52,337	90,577	174,281	312,581	412,431
Colored	....	....	....	....	....	....	207	128	346	487	1,186	1,105
Total	....	....	....	....	....	....	13,294	52,465	90,923	174,768	313,767	413,536
California:												
White	....	....	....	....	....	....	91,635	375,908	555,975	858,676	1,196,802	1,474,008
Colored	....	....	....	....	....	....	962	4,086	4,272	6,018	11,328	11,045
Total	....	....	....	....	....	....	92,597	379,994	560,247	864,694	1,208,130	1,485,053
Total Western Division:												
White	....	....	....	....	....	....	177,577	614,497	984,130	1,755,845	3,000,532	4,061,095
Colored	....	....	....	....	....	....	1,241	4,479	6,380	11,852	27,081	30,254
Total	....	....	....	....	....	....	178.818	618,976	990,510	1,767,697	3,027,613	4,091,349

POPULATION OF THE UNITED STATES BY COLOR AT EACH CENSUS,-(Continued).

States and Territories.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
Persons on public ships in the service of the United States or stationed abroad	....	....	....	....	5,318	6,100	....	....	....	....	....	91,219
Total United States:												
White	3,172,006	4,306,446	5,862,073	7,862,166	10,537,378	14,195,805	19,553,068	27,001,491	33,678,362	43,574,990	55,152,210	66,890,199
Colored	757,208	1,002,037	1,377,808	1,771,656	2,328,642	2,873,648	3,638,808	4,441,830	4,880,009	6,580,793	7,470,040	8,803,535
Total	3,929,214	5,308,483	7,239,881	9,633,822	12,866,020	17,069,453	23,191,876	31,443,321	38,558,371	50,155,783	62,622,250	75,693,734
Alaska:												
White	....	....	....	....	....	....	....	....	....	....	....	63,424
Colored	....	....	....	....	....	....	....	....	....	....	....	168
Total	....	....	....	....	....	....	....	....	....	....	32,052	63,592
Hawaii:												
White	....	....	....	....	....	....	....	....	....	....	....	153,768
Colored	....	....	....	....	....	....	....	....	....	....	....	233
Total	....	....	....	....	....	....	....	....	....	....	89,990	154,001
Indian Territory:												
White	....	....	....	....	....	....	....	....	....	....	....	265,207
Colored	....	....	....	....	....	....	....	....	....	....	....	36,853
Total	....	....	....	....	....	....	....	....	....	....	180,182	302,060
Indians on reservations	....	....	....	....	....	....	....	....	....	....	145,282	
Total	....	....	....	....	....	....	....	....	....	....	....	76,303,387

THE TWELFTH (1900) AND PRIOR CENSUSES.

PERMANENT CENSUS OFFICE.—Director of the Census, William R. Merriam, in his report for the year ending June 30, 1902, stated that the law establishing a permanent Census Office went into effect July 1, 1902, and at that date the work of tabulating and publishing the returns of the enumerators for the census of 1900 (Twelfth) had been practically completed.

COMPARISON OF RESULTS.—The results of the census of 1900, at the date of the Director's report, were embodied in ten quarto volumes, comprising the reports on Population, Vital Statistics, Agriculture and Manufactures. This immense task was completed in a remarkably short time; not since the census of 1840 had the period been so brief between the enumeration and the publication of the final results. The returns of the census of 1840 were comprised in 840 pages, while those of the census of 1900 required more than 10,000 pages.

REASONS FOR PROMPTITUDE.—The completion of the work in so short a time was due to the liberal provisions of the Act of Congress which gave the Director wide discretion in the conduct of his office, and to the skill, perseverance and enthusiasm of those immediately in charge of the work. No doubt the advantages possessed by a permanent Census Office will prove to be such as to still further reduce the time between the enumeration and publication of the returns.

EMPLOYES AND APPARATUS.—The maximum number of employes of the census of 1900, including supervisors and enumerators, was 59,373. The maximum number of 3,554 persons employed in the Census Office at Washington was reached in 1900, and there were 2,648 special agents in the field. In tabulating the returns of the enumeration, 1,642 punches, 311 electric tabulating machines, and 74 adding machines were required, and approximately 215,000,000 cards were used.

COST.—The cost of the temporary work of the census of 1900 was $11,854,817.91, an average of 15.5 cents per capita. The total cost of the field work was $4,358,670, an average of 5.7 cents per capita.

PRIOR CENSUSES.—The original records of the First (1790) to the Tenth (1880) Censuses are bound in book form and stored in the Patent Office at Washington. Those of the Eleventh (1890) Census are stored in unbound form in the Union Building, Washington. Much interest is manifested by the people in these original documents and a large number are continually making personal examinations of them for legal and other purposes.

DWELLINGS AND FAMILIES IN THE UNITED STATES.

[*From Twelfth Census* (1900) *Report.*]

STATES AND TERRITORIES.	Total Population.	Total Dwellings.	Total Families.
Alabama	1,828,697	362,295	374,765
Alaska	63,592	10,565	13,459
Arizona	122,931	28,763	29,875
Arkansas	1,311,564	259,004	265,238
California	1,485,053	313,217	341,781
Colorado	539,700	120,364	127,459
Connecticut	908,420	159,677	203,424
Delaware	184,735	38,191	39,446
District of Columbia	278,718	49,385	56,678
Florida	528,542	113,594	117,001
Georgia	2,216,331	436,183	455,557
Hawaii	154,001	32,366	36,922
Idaho	161,772	36,487	37,491
Illinois	4,821,550	845,836	1,036,158
Indiana	2,516,462	552,495	571,513
Indian Territory	392,060	75,539	76,701
Iowa	2,231,853	468,682	480,878
Kansas	1,470,495	314,375	321,947
Kentucky	2,147,174	413,974	437,054
Louisiana	1,381,625	269,395	284,875
Maine	694,465	148,507	163,344
Maryland	1,188,044	221,706	242,331
Massachusetts	2,805,346	451,362	613,659
Michigan	2,420,982	521,648	548,094
Minnesota	1,751,394	317,037	342,658
Mississippi	1,551,270	310,963	318,948
Missouri	3,106,665	593,528	654,333
Montana	243,329	53,779	55,889
Nebraska	1,066,300	213,972	220,947
Nevada	42,335	10,960	11,190
New Hampshire	411,588	86,635	97,902
New Jersey	1,883,669	321,032	415,222
New Mexico	195,310	44,903	46,355
New York	7,268,894	1,035,180	1,634,523
North Carolina	1,893,810	360,491	370,072
North Dakota	319,146	63,319	64,690
Ohio	4,157,545	857,636	944,433
Oklahoma	398,331	85,309	86,908
Oregon	413,536	87,523	91,214
Pennsylvania	6,302,115	1,236,238	1,320,025
Rhode Island	428,556	67,816	94,179
South Carolina	1,340,316	259,302	269,864
South Dakota	401,570	81,863	83,536
Tennessee	2,020,616	385,588	402,536
Texas	3,048,710	575,734	589,291
Utah	276,749	53,490	56,196
Vermont	343,641	75,021	81,462
Virginia	1,854,184	347,159	364,517
Washington	518,103	106,622	113,086
West Virginia	958,800	180,715	186,291
Wisconsin	2,069,042	398,017	426,063
Wyoming	92,531	19,664	20,110
Total for United States	76,303,387	14,474,777	16,239,797

HOW THE PEOPLE ARE OCCUPIED.

The following, from the Twelfth (1900) Census, shows the total number of persons in the United States, of 10 years of age and over, engaged in each specified occupation, classified by sex:

OCCUPATION.	Total.	Male.	Female.
Agricultural pursuits	10,438,219	9,458,194	980,025
Professional service	1,264,737	833,584	431,153
Domestic and personal service.	5,691,746	3,592,581	2,099,165
Trade and transportation	4,778,233	4,274,659	503,574
Manufacturing and mechanical pursuits	7,112,987	5,797,097	1,315,890
Total	29,285,922	23,956,115	5,329,807

AREA, POPULATION AND MATERIAL INDUSTRIES OF THE UNITED STATES

[*The Bureau of Statistics.*]

The following figures of area (exclusive of Alaske and newly acquired islands), population and material industries of the United States, are furnished by the Bureau of Statistics of the Treasury Department for the fiscal year ending June 30, 1902. Most of the figures are official; the rest are estimates according to the recognized laws of percentages. Altogether they constitute the very latest accessible statistics of an official kind:

Area, square miles	3,025,600
Population	79,003,000
Population per square mile	26.11
Public debt less cash in Treasury	$969,457,241.04
Debt per capita less cash in Treasury	$12.27
Interest bearing debt	$931,070,340
Annual interest charge	$27,542,945
Interest per capita	.37
Gold in circulation	$629,271,532
Gold certificates in circulation	$307,110,929
Silver in circulation	$151,436,658
Silver certificates in circulation	$446,650,243
U. S. notes (greenbacks) outstanding	$346,681,016
National bank notes outstanding	$356,672,091
Circulation of money	$2,246,529,412
Circulation per capita	$28.40
National banks in operation Jan. 1	4,337
Capital of National banks	$670,164,195
Deposits in National banks	$3,111,690,196
Receipts—Net ordinary	$562,478,233
Receipts—Customs	$254,444,708
Receipts, internal revenue	$271,880,122
Expenditures—Net ordinary	$442,082,813
Expenditures—War	$112,272,216
Expenditures—Navy	$67,803,128
Expenditures—Pensions	$138,488,560
Expenditures—Interest on public debt	$29,108,045
Imports of merchandise	$903,320,948
Imports of merchandise per capita	$11.43
Exports of merchandise	$1,381,719,401
Exports of merchandise per capita	$17.49
Imports of silk, raw	$14,230,708
Imports of rubber, crude	$50,413,481
Imports of tin plates	$198,996,086
Imports of iron and steel and manufactures of	$27,180,247
Exports of iron and steel and manufactures of	$98,552,562
Exports of agricultural products	$851,465,622
Exports of manufactures	$403,626,437
Cotton exported (pounds)	3,500,778,763
Railways in operation, (miles)	201,839
Immigrants' arrived (number)	648,743

GROWTH OF CITIES OF 25,000 POPULATION AND OVER.

[*Compiled from Twelfth* (1900) *Census.*]

City	1900.		1890.		1880.		Per Ct. inc. 1890 to 1900.	Per Ct. inc. 1880 to 1890.
	Rank.	Pop.	Rank.	Pop.	Rank.	Pop.		
New York, N. Y.	1	3,437,202	1	1,515,301	1	1,206,299	126.8	25.6
Chicago, Ill.	2	1,698,575	2	1,099,850	3	503,185	54.4	118.6
Philadelphia, Pa.	3	1,293,697	3	1,046,964	2	847,170	23.6	23.6
St. Louis, Mo.	4	575,238	4	451,770	5	350,518	27.3	28.9
Boston, Mass.	5	560,892	5	448,477	4	362,839	25.1	23.6
Baltimore, Md.	6	508,957	6	434,439	6	332,313	17.2	30.7
Cleveland, O.	7	381,768	9	261,353	11	160,146	46.1	63.2
Buffalo, N. Y.	8	352,387	10	255,664	13	155,134	37.8	64.8
San Francisco, Cal.	9	342,782	7	298,997	8	233,959	14.6	27.8
Cincinnati O.	10	325,902	8	296,908	7	255,139	9.8	16.4
Pittsburg, Pa.	11	321,616	12	238,617	12	156,389	34.8	52.6
New Orleans, La.	12	287,104	11	242,039	9	216,090	18.6	12.0
Detroit, Mich.	13	285,704	14	205,876	17	116,340	38.8	77.0
Milwaukee, Wis.	14	285,315	15	204,468	18	115,587	39.5	76.9
Washington, D. C	15	278,718	13	230,392	10	177,624	21.0	29.7
Newark, N. J.	16	246,070	16	181,830	14	136,508	35.3	33.2
Jersey City, N. J.	17	206,433	18	163,003	16	120,722	26.6	35.0
Louisville, Ky.	18	204,731	19	161,129	15	123,758	27.1	30.2
Minneapolis, Minn.	19	202,718	17	164,738	37	46,887	23.1	251.4
Providence, R. I.	20	175,597	24	132,146	19	104,857	32.9	26.0
Indianapolis, Ind.	21	169,164	26	105,436	23	75,056	60.4	40.5
Kansas City, Mo.	22	163,752	23	132,716	29	55,785	23.4	137.9
St. Paul, Minn.	23	163,065	22	133,156	44	41,473	22.5	221.1
Rochester, N. Y.	24	162,608	21	133,896	21	89,366	21.4	49.8
Denver, Col.	25	133,859	25	106,713	49	35,629	25.4	199.5
Toledo, O.	26	131,822	32	81,434	34	50,137	61.9	62.4
Allegheny, Pa	27	129,896	27	105,287	22	78,682	23.4	33.8
Columbus, O.	28	125,560	29	88,150	32	51,647	42.4	70.7
Worcester, Mass.	29	118,421	31	84,655	27	58,291	39.9	45.2
Syracuse, N. Y.	30	108,374	30	88,143	31	51,792	23.0	70.2
New Haven, Ct.	31	108,027	34	81,298	25	62,882	32.9	29.3
Paterson, N. J.	32	105,171	35	78,347	33	51,031	34.2	53.5
Fall River, Mass.	33	104,863	39	74,398	36	48,961	40.9	52.0
St. Joseph, Mo.	34	102,979	54	52,324	56	32,431	96.8	61.3
Omaha, Neb.	35	102,555	20	140,452	62	30,518	*27.0	360.2
Los Angeles, Cal.	36	102,479	56	50,395	135	11,183	103.4	350.6
Memphis, Tenn.	37	102,320	42	64,495	53	33,592	58.6	92.0
Scranton, Pa.	38	102,026	38	75,215	38	45,850	35.6	64.0
Lowell, Mass.	39	94,969	36	77,696	26	59,475	22.2	30.6
Albany, N. Y.	40	94,151	28	94,923	20	90,758	*.8	4.6
Cambridge, Mass.	41	91,886	40	70,028	30	52,669	31.2	33.0
Portland, Ore.	42	90,426	60	46,385	106	17,577	94.9	163.9
Atlanta, Ga.	43	89,872	41	65,533	48	37,409	37.1	75.2
Grand Rapids, Mich.	44	87,565	46	60,278	57	32,016	45.3	88.3
Dayton, O.	45	85,333	44	61,220	46	38,678	39.4	58.3
Richmond, Va.	46	85,050	33	81,388	24	63,600	4.5	28.0
Nashville, Tenn.	47	80,865	37	76,168	39	43,350	6.2	75.7
Seattle, Wash.	48	80,671	69	42,837	151	3,533	88.3	1,112.5
Hartford, Ct.	49	79,850	53	53,230	42	42,015	50.0	26.7
Reading, Pa.	50	78,961	47	58,661	40	43,278	34.6	35.5
Wilmington, Del.	51	76,508	43	61,431	41	42,478	24.5	44.6
Camden, N. J.	52	75,935	48	58,313	43	41,659	30.2	40.0
Trenton, N. J.	53	73,307	49	57,458	63	29,910	27.6	92.1
Bridgeport, Ct.	54	70,996	58	48,866	70	27,643	45.3	76.8
Lynn, Mass.	55	68,513	50	55,727	47	38,274	22.9	45.6
Oakland, Cal.	56	66,960	59	48,682	50	34,555	37.5	40.9
Lawrence, Mass.	57	62,559	63	44,654	45	39,151	40.1	14.1
New Bedford, Mass.	58	62,442	71	40,733	74	26,845	53.3	51.7
Des Moines, Iowa	59	62,139	57	50,093	79	22,408	24.0	123.5
Springfield, Mass.	60	62,059	64	44,179	54	33,340	40.5	32.5
Somerville, Mass.	61	61,643	73	40,152	77	24,933	53.5	61.0
Troy, N. Y.	62	60,651	45	60,956	28	56,747	*.5	7.4
Hoboken, N. J.	63	59,364	67	43,618	58	30,999	36.0	40.8
Evansville, Ind.	64	59,007	55	50,756	65	29,280	16.3	73.3
Manchester, N. H.	65	56,987	65	44,126	55	32,630	29.1	35.2
Utica, N. Y.	66	56,383	66	44,007	51	33,914	28.1	29.8
Peoria, Ill.	67	56,100	70	41,024	66	29,259	36.7	40.2
Charleston, S. C.	68	55,807	52	54,955	35	49,984	1.6	9.9
Savannah, Ga.	69	54,244	68	43,189	61	30,709	25.6	40.6
Salt Lake City, Utah	70	53,531	62	44,843	90	20,768	19.4	115.9
San Antonio, Tex.	71	53,321	80	37,673	93	20,550	41.5	83.3
Duluth, Minn.	72	52,969	91	33,115	152	†3,483	60.0	850.8
Erie, Pa.	73	52,733	72	40,634	69	27,737	29.8	46.5
Elizabeth, N. J.	74	52,130	78	37,764	68	28,229	38.0	33.8
Wilkesbarre, Pa.	75	51,721	79	37,718	78	23,339	37.1	61.6
Kansas City, Kas.	76	51,418	75	38,316	155	3,200	34.2	1,097.4
Harrisburg, Pa.	77	50,167	74	39,385	59	30,762	27.4	28.0
Portland, Me.	78	50,145	82	36,425	52	33,810	37.7	7.7
Yonkers, N. Y.	79	47,931	92	32,033	101	18,892	49.6	69.6
Norfolk, Va	80	46,624	87	34,871	82	21,966	33.7	58.7
Waterbury, Ct.	81	45,859	105	28,646	105	17,806	60.1	60.7

GROWTH OF CITIES OF 25,000 POPULATION AND OVER—(Continued).

CITY.	1900.		1890.		1880.		Per Ct. inc. 1890 to 1900.	Per Ct. inc. 1880 to 1890.
	Rank.	Pop.	Rank.	Pop.	Rank.	Pop.		
Holyoke, Mass.	82	45,712	84	35,637	84	21,915	28.3	62.6
Fort Wayne, Ind.	83	45,115	85	35,393	73	26,880	27.5	31.7
Youngstown, O.	84	44,885	90	33,220	118	15,435	35.1	115.2
Houston, Tex.	85	44,633	110	27,557	111	16,513	62.0	66.9
Covington, Ky.	86	42,938	81	37,371	64	29,720	14.9	25.7
Akron, O.	87	42,728	109	27,601	112	16,512	54.8	67.2
Dallas, Tex.	88	42,638	76	38,067	137	10,358	12.0	267.5
Saginaw, Mich.	89	42,345	61	46,322	136	10,525	*8.6	340.1
Lancaster, Pa.	90	41,459	93	32,011	76	25,769	29.5	24.2
Lincoln, Neb.	91	40,169	51	55,154	127	13,003	*27.2	324.2
Brockton, Mass.	92	40,063	112	27,294	123	13,608	46.8	100.6
Binghamton, N. Y.	93	39,647	86	35,005	107	17,317	13.3	102.1
Augusta, Ga.	94	39,441	89	33,300	85	21,891	18.4	52.1
Honolulu, Hawaii	95	39,306	132	22,907	....	......‡....	71.6	....
Pawtucket, R. I.	96	39,231	108	27,633	99	19,030	42.0	45.2
Altoona, Pa.	97	38,973	100	30,337	97	19,710	28.5	53.9
Wheeling, W. Va.	98	38,878	88	34,522	60	30,737	12.6	12.3
Mobile, Ala.	99	38,469	96	31,076	67	29,132	23.8	6.7
Birmingham, Ala.	100	38,415	117	26,178	156	3,086	46.7	748.3
Little Rock, Ark.	101	38,307	118	25,874	125	13,138	48.1	96.9
Springfield, O.	102	38,253	94	31,895	91	20,730	19.9	53.9
Galveston, Tex.	103	37,789	104	29,084	81	22,248	29.9	30.7
Tacoma, Wash.	104	37,714	83	36,006	157	1,098	4.7	3,179.2
Haverhill, Mass.	105	37,175	111	27,412	102	18,472	35.6	48.4
Spokane, Wash.	106	36,848	147	19,922	158	350	85.0	5,592.0
Terre Haute, Ind.	107	36,673	102	30,217	75	26,042	21.4	16.0
Dubuque, Iowa	108	36,297	101	30,311	80	22,254	19.7	36.2
Quincy, Ill.	109	36,252	95	31,494	72	27,268	15.1	15.5
South Bend, Ind.	110	35,999	137	21,819	124	13,280	65.0	64.3
Salem, Mass.	111	35,956	99	30,801	71	27,563	16.7	11.7
Johnstown, Pa.	112	35,936	138	21,805	143	8,380	64.8	160.2
Elmira, N. Y.	113	35,672	98	30,893	94	20,541	15.5	50.4
Allentown, Pa.	114	35,416	121	25,228	103	18,063	40.4	39.7
Davenport, Iowa	115	35,254	114	26,872	86	21,831	31.2	23.1
McKeesport, Pa.	116	34,227	145	20,741	144	8,212	65.0	152.6
Springfield, Ill.	117	34,159	123	24,953	96	19,743	36.8	26.4
Chelsea, Mass.	118	34,072	106	27,909	87	21,782	22.1	28.1
Chester, Pa.	119	33,988	146	20,226	119	14,997	68.0	34.9
York, Pa.	120	33,708	144	20,793	121	13,940	62.1	49.2
Malden, Mass.	121	33,664	131	23,031	131	12,017	46.2	91.7
Topeka, Kas.	122	33,608	97	31,007	117	15,452	8.4	100.7
Newton, Mass.	123	33,587	127	24,379	108	16,995	37.8	43.4
Sioux City, Iowa	124	33,111	77	37,806	146	7,366	*12.4	413.3
Bayonne, N. J.	125	32,722	149	19,033	140	9,372	71.9	103.1
Knoxville, Tenn.	126	32,637	134	22,535	139	9,693	44.8	132.5
Schenectady, N. Y.	127	31,682	148	19,902	122	13,655	59.2	45.7
Fitchburg, Mass.	128	31,531	135	22,037	129	12,429	43.1	77.3
Superior, Wis.	129	31,091	157	11,963	....	....	159.5	....
Rockford, Ill.	130	31,051	128	23,584	126	13,129	31.7	79.6
Taunton, Mass.	131	31,036	120	25,448	89	21,213	22.0	20.0
Canton, O.	132	30,667	116	26,189	130	12,258	17.1	113.6
Butte, Mont.	133	30,470	159	10,723	153	3,363	184.2	218.9
Montgomery, Ala.	134	30,346	136	21,883	109	16,713	38.7	30.9
Auburn, N. Y.	135	30,345	119	25,858	83	21,924	17.4	17.9
Chattanooga, Tenn.	136	30,154	103	29,100	128	12,892	3.6	125.7
East St. Louis, Ill.	137	29,655	153	15,169	141	9,185	95.5	65.1
Joliet, Ill.	138	29,353	129	23,264	134	11,657	26.2	99.6
Sacramento, Cal.	139	29,282	115	26,386	88	21,420	11.0	23.2
Racine, Wis.	140	29,102	141	21,014	115	16,031	38.5	31.1
LaCrosse, Wis.	141	28,895	122	25,090	120	14,505	15.2	73.0
Williamsport, Pa.	142	28,757	113	27,132	100	18,934	6.0	43.3
Jacksonville, Fla.	143	28,429	151	17,201	145	7,650	65.3	124.8
Newcastle, Pa.	144	28,339	158	11 600	142	8,418	144.3	37.8
Newport, Ky.	145	28,301	124	24,918	95	20,433	13.6	21.9
Oshkosh, Wis.	146	28,284	133	22 836	116	15,748	23.9	45.0
Woonsocket, R. I.	147	28,204	142	20,830	114	16,050	35.4	29.8
Pueblo, Col.	148	28,157	126	24,558	154	3,217	14.7	663.4
Atlantic City, N. J	149	27,838	155	13,055	150	5,477	113.2	138.4
Passaic, N. J.	150	27,777	156	13,028	140	6,532	113.2	99.4
Bay City, Mich.	151	27,628	107	27,839	92	20,693	*.8	34 5
Fort Worth, Tex.	152	26,688	130	23,076	148	6,663	15.7	246.3
Lexington, Ky.	153	26,369	139	21,567	110	16,656	22.3	29.5
Gloucester, Mass.	154	26,121	125	24,651	98	19,329	6.0	27.5
Joplin, Mo.	155	26,023	160	9,943	147	7,038	161.7	41 3
South Omaha, Neb.	156	26,001	161	8,062	....	....	222.5	....
New Britain, Ct.	157	25,998	152	16,519	133	11,800	57.4	40 0
Council Bluffs, Iowa	158	25,802	140	21,474	104	18,063	20.2	18 9

* Decrease. † Includes Duluth village. ‡ No census taken of Honolulu, Hawaii, in 1880.

CITIES, BOROUGHS AND TOWNS OF 5,000 POPULATION AND OVER.

[*Compiled from Twelfth* (1900) *Census*.]

CITIES.	Population.
Adrian, Mich	9,654
Akron, Ohio	42,728
Alameda, Cal	16,464
Albany, N. Y	94,151
Albuquerque, N. M	6,238
Alexandria, Ind	7,221
Alexandria, La	5,648
Alexandria, Va	14,528
Allegheny, Pa	129,896
Allentown, Pa	35,416
Alliance, Ohio	8,974
Alpena, Mich	11,802
Alton, Ill	14,210
Altoona, Pa	38,973
Americus, Ga	7,674
Amsterdam, N. Y	20,929
Anaconda, Mont	9,453
Anderson, Ind	20,178
Anderson, S. C	5,498
Annapolis, Md	8,525
Ann Arbor, Mich	14,509
Anniston, Ala	9,695
Ansonia, Ct	12,681
Antigo, Wis	5,145
Appleton, Wis	15,085
Archbald, Pa	5,396
Ardmore, I. T	5,681
Argentine, Kan	5,878
Arkansas City, Kan	6,140
Asheville, N. C	14,694
Ashland, Ky	6,800
Ashland, Pa	6,438
Ashland, Wis	13,074
Ashtabula, Ohio	12,949
Astoria, Ore	8,381
Atchison, Kan	15,722
Athens, Ga	10,245
Atlanta, Ga	89,872
Atlantic City, Iowa	5,046
Atlantic City, N. J	27,838
Auburn, Me	12,951
Auburn, N. Y	30,345
Augusta, Ga	39,441
Augusta, Me	11,683
Aurora, Ill	24,147
Aurora, Mo	6,191
Austin, Minn	5,474
Austin, Tex	22,258
Baker City, Ore	6,663
Baltimore, Md	508,957
Bangor, Me	21,850
Baraboo, Wis	5,751
Barre, Vt	8,448
Batavia, N. Y	9,180
Bath, Me	10,477
Baton Rouge, La	11,269
Battle Creek, Mich	18,563
Bay City, Mich	27,628
Bayonne, N. J	32,722
Beatrice, Neb	7,875
Beaumont, Tex	9,427
Beaver Dam, Wis	5,128
Beaver Falls, Pa	10,054
Bedford, Ind	6,115
Bellaire, Ohio	9,912
Bellefontaine, Ohio	6,649
Belleville, Ill	17,484
Bellevue, Ky	6,332
Beloit, Wis	10,436
Belvidere, N. J	6,937
Bennington, Vt	5,656
Benton Harbor, Mich	6,562
Berkeley, Cal	13,214
Berlin, N. H	8,886
Bessemer, Ala	6,358
Bethlehem, Pa	7,293
Beverly, Mass	13,884
Biddeford, Me	16,145
Biloxi, Miss	5,467
Binghamton, N. Y	39,647
Birmingham, Ala	38,415
Bloomfield, N. J	9,668
Bloomington, Ill	23,286
Bloomington, Ind	6,460
Bloomsburg, Pa	6,170
Blue Island, Ill	6,114
Boise, Idaho	5,957
Bonham, Tex	5,042
Boone, Iowa	8,880
Boston, Mass	560,892
Boulder, Col	6,150
Bowling Green, Ky	8,226
Bowling Green, Ohio	5,067
Braddock, Pa	15,654
Bradford, Pa	15,029
Brainerd, Minn	7,524
Brattleboro, Vt	5,297
Brazil, Ind	7,786
Brenham, Tex	5,968
Bridgeport, Ct	70,996
Bridgeton, N. J	13,913
Bristol, Ct	6,268
Bristol, Pa	7,104
Bristol, Tenn	5,271
Brockton, Mass	40,063
Brookfield, Mo	5,484
Brownsville, Tex	6,305
Brunswick, Ga	9,081
Brunswick, Me	5,210
Bucyrus, Ohio	6,560
Buffalo, N. Y	352,387
Burlington, Iowa	23,201
Burlington, N. J	7,392
Burlington, Vt	18,640
Butler, Pa	10,853
Butte, Mont	30,470
Cadillac, Mich	5,997
Cairo, Ill	12,566
Calais, Me	7,655
Cambridge, Md	5,747
Cambridge, Mass	91,886
Cambridge, Ohio	8,241
Camden, N. J	75,935
Canal Dover, Ohio	5,422
Canandaigua, N Y	6,151
Canton, Ill	6,564
Canton, Ohio	30,667
Carbondale, Pa	13,536
Carlisle, Pa	9,626
Carnegie, Pa	7,330
Carthage, Mo	9,416
Catskill, N. Y	5,484
Cedar Falls, Iowa	5,319
Cedar Rapids, Iowa	25,656
Centreville, Iowa	5,256
Central Falls, R. I	18,167
Centralia, Ill	6,721
Chambersburg, Pa	8,864
Champaign, Ill	9,098
Charleroi, Pa	5,930
Charleston, Ill	5,488
Charleston, S. C	55,807
Charleston, W Va	11,099
Charlotte, N. C	18,091
Charlottesville, Va	6,449
Chattanooga, Tenn	30,154
Cheybogan, Mich	6,489
Chelsea, Mass	34,072
Chester, Pa	33,988
Cheyenne, Wyo	14,087
Chicopee, Mass	19,167
Chicago Ill	1,698,575
Chicago Heights, Ill	5,100
Chillicothe, Mo	6,905
Chillicothe Ohio	12,976
Chippewa Falls, Wis	8,094
Cincinnati, Ohio	325,902
Circleville, Ohio	6,991
Clarksville, Tenn	9,431
Clearfield, Pa	5,081
Cleburne, Tex	7,493
Cleveland, Ohio	381,768
Clinton, Iowa	22,698
Clinton, Mo	5,061
Coatesville, Pa	5,721
Cohoes, N. Y	23,910
Coldwater, Mich	6,216
Colorado Springs, Col	21,085
Columbia, Mo	5,651
Columbia, Pa	12,316
Columbia, S C	21,108
Columbia, Tenn	6,052
Columbus, Ga	17,614
Columbus, Ind	8,130
Columbus, Miss	6,484
Columbus, Ohio	125,560
Concord, N. H	19,632
Concord, N. C	7,910
Conneaut, Ohio	7,133
Connellsville, Pa	7,160
Connersville, Ind	6,836
Conshohocken, Pa	5,762
Corning, N. Y	11,061
Corry, Pa	5,369
Corsicana, Tex	9,313
Cortland, N. Y	9,014
Coshocton, Ohio	6,473
Council Bluffs, Iowa	25,802
Covington, Ky	42,938
Crawfordsville, Ind	6,649
Creston, Iowa	7,752
Cripple Creek, Col	10,147
Crookston, Mich	5,359
Cumberland, Md	17,128
Dallas, Tex	42,638
Danbury, Ct	16,537
Danville, Ill	16,354
Danville, Pa	8,042
Danville, Va	16,520
Davenport, Iowa	35,254
Dayton, Ky	6,104
Dayton, Ohio	85,333
Decatur, Ill	20,754
Defiance, Ohio	7,579
De Kalb, Ill	5 904
Delaware, Ohio	7,940
Denison, Tex	11,807
Denver, Col	133,859
Derby, Ct	7,930
Des Moines, Iowa	62,139
De Soto, Mo	5,611
Detroit, Mich	285,704
Dixon, Ill	7,917
Dover, N. H	13,207
Dover, N. J	5,938
Dubois, Pa	9 375
Dubuque, Iowa	36,297
Duluth, Minn	52,969
Dunkirk, N. Y	11,616
Dunmore, Pa	12,583
Duquesne, Pa	9,036
Durham, N. C	6,679
East Liverpool, Ohio	16,485
Easton, Pa	25,238
East Orange, N. J	21.506
Eastport, Me	5,311
East St. Louis, Ill	29,655
Eau Claire, Wis	17,517
Edwardsville, Pa	5,165
Elgin, Ill	22,433
Elizabeth, N. J	52,130
Elizabeth, N. C	6,348
Elkhart, Ind	15,184
Elmira, N. Y	35,672
El Paso Tex	15,906
Elwood Ind	12,950
Elyria, Ohio	8,791
Emporia, Kan	8,223
Englewood, N. J	6 253
Erie, Pa	52,733
Escanaba, Mich	9.549
Etna, Pa	5,384
Eureka, Cal	7,327
Evanston, Ill	19.259
Evansville, Ind	59,007
Everett, Mass	24,336
Everett, Wash	7,838
Fairmont, W. Va	5,655
Fall River Mass	104,863
Fargo, N. Dakota	9,589
Faribault, Minn	7,868
Fergus Falls, Minn	6,072
Findlay, Ohio	17,613
Fitchburg, Mass	31,531
Flint City, Mich	13,103
Florence, Ala	6,478
Fond du Lac, Wis	15,110
Fort Dodge, Iowa	12,162
Fort Madison, Iowa	9,278
Fort Scott, Kan	10,322
Fort Smith, Ark	11,587
Fort Wayne, Ind	45,115
Fort Worth, Tex	26,688
Fostoria, Ohio	7,730
Frankfort, Ind	7,100
Frankfort, Ky	9,487
Franklin, N. H	5,846
Franklin City, Pa	7,317
Frederick, Md	9,296
Fredericksburg, Va	5,068
Freeland, Pa	5,254
Freeport, Ill	13,258
Fremont Neb	7,241
Fremont, Ohio	8,439
Fresno, Cal	12,470
Frostburg, Md	5 274
Fulton, N. Y	5,281
Gainesville, Ga	7,874
Galena, Ill	5,005
Galena, Kan	10,155
Galesburg, Ill	18,607
Galion, Ohio	7,282
Gallipolis, Ohio	5,432
Galveston, Tex	37,789
Gardiner, Me	5,501
Geneva, N. Y	10,433
Glen Falls, N. Y	12,613
Glenville, Ohio	5,588
Gloucester, Mass	26,121
Gloucester, N. J	6,840
Gloversville, N. Y	18,349
Goldsboro, N. C	5,877
Goshen, Ind	7,810
Grafton, W. Va	5,650
Grand Forks, N. D	7,652
Grand Island, Neb	7,554
Grand Rapids, Mich	87,565
Great Falls, Mont	14,930
Green Bay, Wis	18,684
Greensboro, N. C	10,035
Greensburg, Ind	5,034
Greensburg Pa	6,508
Greenville, Miss	7,642
Greenville, Ohio	5,501
Greenville, S. C	11,860
Greenville, Tex	6,860
Griffin, Ga	6,857
Guthrie, Okla	10,006
Hackensack, N. J	9,443
Hagerstown, Md	13,591
Hamilton, Ohio	23,914
Hammond, Ind	12.376
Hannibal, Mo	12,780
Hanover, Pa	5.302
Harrisburg, Pa	50,167
Harrison, N. J	10,596
Hartford, Ct	79,850
Hartford, Ind	5,912
Harvey, Ill	5,395
Hastings, Neb	7,188
Haverhill, Mass	37,175
Haverstraw, N. Y	5,935
Hazleton, Pa	14,230
Helena, Ark	5,550
Helena, Mont	10,770
Henderson, Ky	10,272
Herkimer, N. Y	5,555
Hillsboro, Tex	5,346
Hoboken, N. J	59,364
Holland, Mich	7,790

CITIES, BOROUGHS AND TOWNS OF 5,000 POPULATION AND OVER—(Continued).

CITIES.	Population.	CITIES.	Population.	CITIES.	Population.	CITIES.	Population.
Holyoke, Mass	45,712	Little Falls, N. Y	10,381	Mt. Vernon, N. Y	21,228	Palestine, Tex	8,297
Homestead, Pa	12,154	Little Rock, Ark	38,307	Mt. Vernon, Ohio	6,633	Pana, Ill	5,530
Honolulu, Hawaii	39,306	Lock Haven, Pa	7,210	Muncie, Ind	20,942	Paris, Ill	6,105
Hoosick Falls, N. Y	5,671	Lockport, N. Y	16,581	Murphysboro, Ill	6,463	Paris, Tex	9,358
Hopkinsville, Ky	7,280	Logan, Utah	5,451	Muscatine, Iowa	14,073	Parkersburg, W. Va	11,703
Hornellsville, N. Y	11,918	Logansport, Ind	16,204	Muskegon, Mich	20,818	Parsons, Kan	7,682
Hot Springs, Ark	9,973	Long Branch, N. J	8,872	Nanticoke, Pa	12,116	Pasadena, Cal	9,117
Houston, Tex	44,633	Lorain, Ohio	16,028	Nashua, N. H	23,898	Passaic, N. J	27,777
Hudson, N. Y	9,528	Los Angeles, Cal	102,479	Nashville, Tenn	80 865	Paterson, N. J	105,171
Huntingdon, Pa	6,053	Louisiana City, Mo	5,131	Natchez, Miss	12,210	Pawtucket, R. I	39,231
Huntington, Ind	9,491	Louisville, Ky	204,731	Naugatuck, Ct	10,541	Peekskill, N. Y	10,358
Huntington, W. Va	11,923	Lowell, Mass	94,969	Nebraska City, Neb	7,380	Pekin, Ill	8,420
Huntsville, Ala	8,068	Ludington, Mich	7,166	Neenah, Wis	5,954	Pensacola, Fla	17,747
Hutchinson, Kan	9,379	Lynchburg, Va	18,891	Negaunee, Mich	6,935	Peoria, Ill	56,100
Ilion, N. Y	5,138	Lynn, Mass	68,513	Nelsonville, Ohio	5,421	Perth Amboy, N. J	17,699
Independence, Mo	6,974	McKeesport, Pa	34,227	Nevada, Mo	7,461	Peru, Ill	6,863
Indianapolis, Ind	169,164	McKee's Rocks, Pa	6,352	New Albany, Ind	20,628	Peru, Ind	8,463
Iola, Kan	5,791	Macomb, Ill	5,375	Newark, N. J	246,070	Petersburg, Va	21,810
Ionia City, Mich	5,209	Macon, Ga	23,272	Newark, Ohio	18,157	Petoskey, Mich	5,285
Iowa City, Iowa	7,987	Madison, Ind	7,835	New Bedford, Mass	62,442	Philadelphia, Pa	1,293,697
Iron Mountain, Mich	9,242	Madison, Wis	19,164	Newbern, N. C	9,090	Phillipsburg, N. J	10,052
Ironton, Ohio	11,868	Mahanoy, Pa	13,504	New Brighton, Pa	6,820	Phœnix, Ariz	5,544
Ironwood, Mich	9,705	Malend, Mass	33,664	New Britain, Ct	25,998	Phœnixville, Pa	9,196
Irvington, N. J	5,255	Malone, N. Y	5,935	New Brunswick, N. J.	20,006	Pine Bluff, Ark	11,496
Ishpeming, Mich	13,255	Manchester, N. H	56,987	Newburgh, N. Y	24,943	Piqua, Ohio	12,172
Ithaca, N. Y	13,136	Manchester, Va	9,715	Newburgh, Ohio	5,909	Pittsburg, Kan	10,112
Jackson, Mich	25,180	Manistee, Mich	14,260	Newburyport, Mass	14,478	Pittsburg, Pa	321,616
Jackson, Miss	7,816	Manitowoc, Wis	11,786	Newcastle, Pa	28,339	Pittsfield, Mass	21,766
Jackson, Tenn	14,511	Mankato, Minn	10,599	New Haven, Ct	108,027	Pittston, Pa	12,556
Jacksonville, Fla	28,429	Mansfield, Ohio	17,640	New Iberia, La	6,845	Plainfield, N. J	15,369
Jacksonville, Ill	15,078	Marietta, Ohio	13,348	New London, Ct	17,548	Plattsburg, N. Y	8,434
Jamestown, N. Y	22,892	Marinette, Wis	16,195	New Orleans, La	287,104	Plymouth, Pa	13,649
Jamesville, Wis	13,185	Marion, Ind	17,337	New Philadelphia, O.	6,213	Pomona, Cal	5,526
Jeannette, Pa	5,865	Marion, Ohio	11,862	Newport, Ky	28,301	Pontiac, Mich	9,769
Jefferson, Mo	9,664	Marlboro, Mass	13,609	Newport, R. I	22,034	Portage, Wis	5,459
Jeffersonville, Ind	10,774	Marquette, Mich	10,058	Newport News, Va	19,635	Port Chester, N. Y	7,440
Jersey City, N. J	206,433	Marshall, Mo	5,086	New Rochelle, N. Y	14,720	Port Huron, Mich	19,158
Johnstown, N. Y	10,130	Marshall, Tex	7,855	Newton, Kan	6,208	Port Jervis, N Y	9,385
Johnstown Pa	35,936	Marshalltown, Iowa	11,544	Newton, Mass	33,587	Portland, Me	50,145
Joliet, Ill	29,353	Marshfield, Wis	5,240	New Ulm, Minn	5,403	Portland, Ore	90,426
Joplin, Mo	26,023	Martinsburg, W. Va	7,564	N. Whatcom, Wash	6,834	Portsmouth, N. H	10,637
Kalamazoo, Mich	24,404	Martin's Ferry, Ohio	7,760	New York, N. Y	3,437,202	Portsmouth, Ohio	17,870
Kane, Pa	5,296	Mason City, Iowa	6,746	Niagara Falls, N. Y	19,457	Portsmouth, Va	17,427
Kankakee, Ill	13,595	Masillon, Ohio	11,944	Niles, Ohio	7,468	Pottstown, Pa	13,696
Kansas City, Kan	51,418	Matawan, N. Y	5,807	Nome, Alaska	12,488	Pottsville, Pa	15,710
Kansas City, Mo	163,752	Mattoon, Ill	9,622	Norfolk, Va	46,624	Poughkeepsie, N. Y	24,029
Kaukauna, Wis	5,115	Maysville, Ky	6,423	Norristown, Pa	22,265	Princeton, Ind	6,041
Kearney, Neb	5,634	Meadville, Pa	10,291	North Adams, Mass	24,200	Providence, R. I	175,597
Kearny, N. J	10,896	Medford, Mass	18,244	Northampton, Mass.	18,643	Provo, Utah	6,185
Keene, N. H	9,165	Melrose, Mass	12,962	North Braddock, Pa.	6,535	Pueblo, Col	28,157
Kenosha, Wis	11,606	Memphis, Tenn	102,320	North Plainfield, N. J.	5 009	Putnam, Ct	6,667
Kenton, Ohio	6,852	Menasha, Wis	5,589	N. Tonawanda, N. Y.	9,069	Quincy, Ill	36,252
Keokuk, Iowa	14,641	Menominee, Mich	12,818	Norwalk, Ct	6,125	Quincy, Mass	23,899
Kewanee, Ill	8,382	Menominee, Wis	5,655	Norwalk, Ohio	7,074	Racine, Wis	29,102
Key West, Fla	17,114	Meriden, Ct	24,296	Norwich, Ct	17,251	Rahway, N. J	7,935
Kingston, N. Y	24,535	Meridian, Miss	14, 50	Norwich, N. Y	5,766	Raleigh, N. C	13,643
Kirksville, Mo	5,966	Merrill, Wis	8,537	Norwood, Ohio	6,480	Reading, Pa	78,961
Knoxville, Tenn	32,637	Mexico, Mo	5,099	Oakland, Cal	66,960	Red Bank, N. J	5,428
Kokomo, Ind	10,609	Michigan City, Ind	14,850	Oconto, Wis	5,646	Red Wing, Minn	7,525
Laconia, N. H	8,042	Middletown, Ct	9,589	Oelwein, Iowa	5,142	Rensselaer. N. Y	7,466
Lacrosse, Wis	28,895	Middletown, N. Y	14,522	Ogden, Utah	16,313	Richmond, Ind	18,226
Lafayette, Ind	18,116	Middletown, Ohio	9,215	Ogdensburg, N. Y	12,633	Richmond, Va	85,050
Lake Charles, La	6,680	Middletown, Pa	5,608	Oil City, Pa	13,264	Riverside, Cal	7,973
Lancaster, Ohio	8,991	Millvale, Pa	6,736	Oklahoma City, Okla	10,037	Roanoke, Va	21,495
Lancaster, Pa	41,459	Millville, N. J	10,583	Old Forge, Pa	5,630	Rochester, Minn	6,843
Lansing, Mich	16,485	Milton, Pa	6,175	Oldtown, Me	5,763	Rochester, N. H	8,466
Lansingburg, N. Y	12,595	Milwaukee, Wis	285,315	Olean, N. Y	9,462	Rochester, N. Y	162,608
Laporte, Ind	7,113	Minneapolis, Minn	202,718	Olyphant, Pa	6,180	Rockford, Ill	31,051
Laramie, Wyo	8,207	Mishawaka, Ind	5,560	Omaha, Neb	102,555	Rock Hill, S. C	5,485
Laredo Tex	13,429	Moberly, Mo	8,012	Oneida, N. Y	6,364	Rock Island, Ill	19,493
La Salle, Ill	10,446	Mobile, Ala	38,469	Oneonta, N. Y	7,147	Rockland, Me	8,150
Laurium, Mich	5,643	Moline, Ill	17,248	Orange City, N. J	24,141	Rockville, Ct	7,287
Lawrence, Kan	10,862	Monmouth, Ill	7,460	Oshkosh, Wis	28,284	Rome, Ga	7,291
Lawrence, Mass	62,559	Monongahela, Pa	5,173	Oskaloosa, Iowa	9,212	Rome, N. Y	15,343
Lead, South Dakota	6,210	Monroe, La	5,428	Ossining, N. Y	7,939	Rutland, Vt	11,499
Leadville, Col	12,445	Monroe, Mich	5,043	Oswego, N. Y	22,199	Saco, Me	6,122
Leavenworth, Kan	20,735	Montclair, N. J	13,962	Ottawa, Ill	10.588	Sacramento, Cal	29,282
Lebanon, Pa	17,628	Montgomery, Ala	30,346	Ottawa, Kan	6,934	Saginaw, Mich	42,345
Lewiston, Me	23,761	Montpelier, Vt	6,266	Ottumwa, Iowa	18,197	St. Albans, Vt	6,239
Lexington, Ky	26,369	Morristown, N. J	11,267	Owatonna, Minn	5,561	St. Charles, Mo	7,982
Lima, Ohio	21,723	Moundsville, W. Va.	5,362	Owego, N. Y	5,039	St. Cloud, Minn	8,663
Lincoln, Ill	8,962	Mt. Carmel, Pa	13,179	Owensboro, Ky	13,189	St. Johnsbury, Vt	5,666
Lincoln. Neb	40.169	Mt. Clemens, Mich	6,576	Owosso, Mich	8,696	St. Joseph, Mich	5.155
Litchfield, Ill	5,918	Mt. Vernon, Ill	5,216	Paducah, Ky	19,446	St. Joseph, Mo.	102,979
Little Falls, Minn	5,774	Mt. Vernon, Ind	5,132	Painesville, Ohio	5,024	St. Louis, Mo.	575,238

CITIES, BOROUGHS AND TOWNS OF 5,000 POPULATION AND OVER—(Continued).

Cities.	Population.	Cities.	Population.	Cities.	Population.	Cities.	Population.
St. Mary's, Ohio	5,359	South Amboy, N. J.	6,349	Topeka, Kan.	33,608	Waukesha, Wis.	7,419
St. Paul, Minn.	163,065	South Bend, Ind.	35,999	Torrington, Ct.	8,360	Wausau, Wis.	12,354
Salem, Mass.	35,956	South Bethlehem, Pa.	13,241	Traverse City, Mich.	9,407	Waycross, Ga.	5,919
Salem, N. J.	5,811	South Norwalk, Ct.	6,591	Trenton, Mo.	5,396	Waynesboro, Pa.	5,396
Salem, Ohio	7,582	South Omaha, Neb.	26,001	Trenton, N. J.	73,307	Webb City, Mo.	9,201
Salina, Kan.	6,074	South Portland, Me.	6,287	Trinidad, Col.	5,345	Wellston, Ohio	8,045
Salisbury, N. C.	6,277	Spartanburg, S. C.	11,395	Troy, N. Y.	60,651	Wellsville, Ohio	6,146
Salt Lake, Utah	53,531	Spokane, Wash.	36,848	Troy, Ohio	5,881	W. Bay City, Mich.	13,119
San Antonio, Tex.	53,321	Springfield, Ill.	34,159	Tucson, Ariz.	7,531	Westbrook, Me.	7,283
San Bernardino, Cal.	6,150	Springfield, Mass.	62,059	Tuscaloosa, Ala.	5,094	West Chester, Pa.	9,524
San Diego, Cal.	17,700	Springfield, Mo.	23,267	Tyler, Tex.	8,069	West Haven, Ct.	5,247
Sandusky, Ohio	19,664	Springfield, Ohio	38,253	Tyrone, Pa.	5,847	West Hoboken, N. J.	23,094
San Francisco, Cal.	342,782	Spring Valley, Ill.	6,214	Union, N. J.	15,187	West New York, N. J.	5,066
San Jose, Cal.	21,500	Stamford, Ct	15,997	Union, S. C.	5,400	West Orange, N. J.	6,889
Santa Barbara, Cal.	6,587	Staunton, Va.	7,289	Uniontown, Pa.	7,344	West Pittston, Pa.	5,846
Santa Cruz, Cal.	5,659	Steelton, Pa.	12,086	Urbana, Ill.	5,728	Wheeling, W. Va.	38,878
Santa Fe, N. M.	5,603	Sterling, Ill.	6,309	Urbana, Ohio	6,808	White Plains, N. Y.	7,899
Santa Rosa, Cal.	6,673	Steubeunville, Ohio	14,349	Utica, N. Y.	56,383	Wichita, Kan.	24 671
Saratoga Sp's, N. Y.	12,409	Stevens Point, Wis.	9,524	Valdosta, Ga.	5,613	Wilkes-Barre, Pa.	51,721
Sault St. Marie, Mich.	10,598	Stillwater, Minn.	12,318	Vallejo, Cal.	7,965	Wilkinsburg, Pa.	11,886
Savannah, Ga.	54,244	Stockton, Cal.	17,506	Valparaiso, Ind.	6,280	Williamsport, Pa.	28,757
Sayre, Pa.	5,243	Streator, Ill.	14,079	Van Wert, Ohio	6,422	Willimantic, Ct.	8,937
Schenectady, N. Y.	31,682	Summit, N. J.	5,302	Vicksburg, Miss.	14,834	Wilmington, Del.	76,508
Scranton, Pa.	102,026	Sumter, S. C.	5,673	Vincennes, Ind.	10,249	Wilmington, N. C.	20,976
Seattle, Wash.	80,671	Sunbury, Pa.	9,810	Wabash, Ind.	8,618	Winchester, Ky.	5,964
Sedalia, Mo.	15,231	Superior, Wis.	31,091	Waco, Tex	20,686	Winchester, Va.	5,161
Selma, Ala.	8,713	Syracuse, N. Y.	108,374	Walla Walla, Wash.	10,049	Winfield, Kan.	5,554
Seneca Falls, N. Y.	6,519	Tacoma, Wash.	37,714	Wallingford, Ct.	6,737	Winona, Minn.	19,714
Seymour, Ind.	6,445	Talladega, Ala.	5,056	Waltham, Mass.	23,481	Winsted, Ct.	6,804
Shamokin, Pa.	18,202	Tamaqua, Pa.	7,267	Warren, Ohio	8,529	Winston-Salem, N. C.	13,650
Sharon, Pa.	8,916	Tampa, Fla.	15,839	Warren, Pa.	8,043	Woburn, Mass.	14,254
Sharpsburg, Pa.	6,842	Tarentum, Pa.	5,472	Washington, D. C.	278,718	Woonsocket, R. I.	28,204
Sheboygan, Wis.	22,962	Taunton, Mass.	31,036	Washington, Ind.	8,551	Wooster, Ohio	6 063
Shelbyville, Ind.	7,169	Temple, Tex.	7,065	Washington, Pa.	7,670	Worcester, Mass.	118,421
Shenandoah, Pa.	20,321	Terre Haute, Ind.	36,673	Washington C. H., O.	5,751	Wyandotte, Kan.	5,183
Sherman, Tex.	10,243	Terrell, Tex.	6,330	Waterbury, Ct.	45,859	Xenia, Ohio	8,696
Shreveport, La.	16,013	Texarkana, Tex.	5,256	Waterloo, Iowa	12,580	Yonkers, N. Y.	47,931
Sidney, Ohio	5,688	Thomasville, Ga.	5,322	Watertown, N. Y.	21,696	York, Neb.	5,132
Sioux City, Iowa	33,111	Tiffin, Ohio	10,989	Watertown, Wis.	8,437	York, Pa.	33,708
Sioux Falls, S. Dak.	10,266	Titusville, Pa.	8,244	Waterville, Me.	9,477	Youngstown, Ohio	44,885
Somersworth, N. H.	7,023	Toledo, Ohio	131,822	Watervliet, N. Y.	14,321	Ypsilanti, Mich.	7,378
Somerville, Mass.	61,643	Tonawanda, N. Y.	7,421	Waukegan, Ill.	9,426	Zanesville, Ohio	23,538

IMMIGRATION INTO THE UNITED STATES.

The immigration into the United States between the years 1789 and 1820 is estimated at 250,000 persons. The following table shows the number of alien passengers that arrived in this country between the years 1820 and 1867; also, the number classed as immigrants arriving since then for the fiscal years ending June 30:

Years.	*No.*	*Years.*	*No.*	*Years.*	*No.*	*Years.*	*No.*	*Years.*	*No.*
1820	8,385	1837	79,340	1854	427,833	1871	321,350	1888	546,889
1821	9,127	1838	38,914	1855	200,877	1872	404,806	1889	444,427
1822	6,911	1839	68,069	1856	195,857	1873	459,803	1890	455,302
1823	6,354	1840	84,066	1857	246,945	1874	313,339	1891	560,319
1824	7,912	1841	80,829	1858	119,501	1875	227,498	1892	623,084
1825	10,199	1842	104,565	1859	118,616	1876	169,986	1893	502,917
1826	10,837	1843	52,496	1860	150,237	1877	141,857	1894	314,467
1827	18,875	1844	78,615	1861	89,724	1878	138,469	1895	279,948
1828	27,382	1845	114,371	1862	89,207	1879	177,826	1896	343,267
1829	22,520	1846	154,416	1863	174,524	1880	457,257	1897	230,832
1830	23,322	1847	234,968	1864	193,195	1881	669,431	1898	229,299
1831	22,633	1848	226,527	1865	247,453	1882	788,992	1899	311,715
1832	60,482	1849	297,024	1866	163,594	1883	603,322	1900	448,572
1833	58.640	1850	369,986	1867	298,967	1884	518,592	1901	487,918
1834	65 365	1851	379,466	1868	282,189	1885	395,346	1902	648,743
1835	45,374	1852	371,603	1869	352,569	1886	334,203	1903	857,046
1836	76,242	1853	368,645	1870	387,203	1887	490,109	1904	812,870
								Total	22,571,732

Occupations of Immigrants.—The occupations of immigrants arriving in the United States for the fiscal year ending June 30, 1901, were reported as follows: Laborers, 161,938; farmers, 3,035; servants, 42,027; carpenters, 6,508; miners, 3,629; clerks, 3,108; tailors, 9,609; shoemakers, 5,451; blacksmiths, 2,613; bakers, 2,192; seamstresses, 4,232; masons, 3,114; mariners, 4,695; merchants, 6,589; professional men, 2,665; miscellaneous occupations, 272,064; of no occupation, 148,686; occupations not stated, 3,469.

IMMIGRATION INTO THE UNITED STATES BY NATIONALITIES.

COUNTRIES.	1900.			1901.		
	Male.	Female.	Total.	Male.	Female.	Total.
EUROPE:						
Austria-Hungary	79,978	34,449	114,477	78,725	34,665	113,390
Belgium	778	418	1,196	1,040	539	1,579
Denmark	1,906	1,020	2,926	2,148	1,507	3,655
England	5,945	4,006	9,951	7,336	4,878	12,214
France	1,084	655	1,739	1,996	1,154	3,150
Germany	10,737	7,770	18,507	12,673	8,978	21,651
Greece	3,634	137	3,771	5,742	168	5,910
Ireland	16,672	19,058	35,730	12,894	17,667	30,561
Italy	76,088	24,047	100,135	106,306	29,690	135,996
Netherlands	1,116	619	1,735	1,617	732	2,349
Norway	6,531	3,034	9,575	7,899	4,349	12,248
Portugal	2,389	1,845	4,234	2,231	1,934	4,165
Roumania	3,760	2,699	6,459	3,981	3,174	7,155
Russia	60,091	31,066	91,157	54,070	31,187	85,257
Scotland	1,083	709	1,792	1,237	833	2,070
Servia, Bulgaria, etc.	102	6	108	551	106	657
Spain	280	75	355	508	84	592
Sweden	10,262	8,388	18,650	12,875	10,456	23,331
Switzerland	763	389	1,152	1,572	629	2,201
Turkey in Europe	268	17	285	341	46	387
Wales	433	331	764	411	290	701
Europe not specified		2	2	7	11	18
Total Europe	283,900	140,800	424,700	316,160	153,077	469,237
ASIA:						
China	1,235	12	1,247	2417	42	2,459
Japan	12,265	370	12,635	4,902	367	5,269
India	8	1	9	20	2	22
Turkey in Asia	2,528	1,434	3,962	4,070	1,712	5,788
Asia not specified	88	5	93	58	3	61
Total Asia	16,124	1,822	17,946	11,467	2,126	13,593
OTHER COUNTRIES:						
Africa	29	1	30	154	19	173
Australasia	161	53	214	232	93	325
Hawaii	42	25	67	4	2	6
Philippines	92	24	116	107	33	140
Pacific Islands not specified	31	....	31	22	5	27
British North America	311	85	396	352	188	540
Central America	22	20	42	101	49	150
Mexico	137	100	237	215	132	347
South America	94	30	124	150	53	203
West Indies	3,197	1,459	4,656	2,090	1,086	176
Countries not specified	8	5	13	1	....	1
Total other Countries	4,124	1,802	5,926	3,428	1,660	2,088
Grand Totals	304,148	144,424	448,572	331,055	156,863	487,918

IMMIGRATION INTO THE UNITED STATES BY COUNTRIES.

COUNTRIES WHENCE ARRIVED.	1902	1903
Austria-Hungary	171,989	206,011
Belgium	2,577	3,460
Denmark	5,660	7,158
France	3,117	5,578
German Empire	28,304	40,083
Greece	8,104	14,090
Italy	178,372	230,622
Netherlands	2,287	3,998
Norway	17,484	24,461
Portugal	6,307	9,307
Roumania	7,196	9,310
Russia	107,347	136,093
Servia and Bulgaria	851	1,761
Spain	975	2,080
Sweden	30,894	46,028
Switzerland	2,344	3,983
Turkey in Europe	187	1,529
England	13,575	26,219
Ireland	29,138	35,300
Scotland	2,560	6,153
Wales	763	1,275
China	1,649	2,209
Japan	14,270	19,968
Turkey in Asia	6,223	7,118
Africa	37	......
Australasia	384	1,150
British N. America	630	1,028
Central America	305	676
Mexico	709	528
South America	337	589
West Indies	4,711	8,170
Other Countries	451	......
Totals	648,743	857,046

MALES OF VOTING AGE, BY NATIVITY, COLOR, AND STATES.

[*From Twelfth* (1900) *Census.*]

STATES AND TERRITORIES.	White.				Colored.[1]	
	Aggregate.	Native-born.	Foreign-born.	Total White.	Total.	Negro.[2]
The United States	21,329,819	16,227,285	5,102,534	19,036,143	2,293,676	2,065,989
Alabama	413,862	405,598	8,264	232,294	181,568	181,471
Alaska	37,956	26,489	11,467	25,953	12,003	141
Arizona	44,081	30,306	13,775	34,911	9,170	1,084
Arkansas	313,836	305,464	8,372	226,597	87,239	87,157
California	544,087	318,817	225,270	489,545	54,542	3,711
Colorado	185,708	133,935	51,773	181,616	4,092	3,215
Connecticut	280,340	173,248	107,092	275,126	5,214	4,576
Delaware	54,018	47,202	6,816	45,592	8,426	8,374
District of Columbia	83,823	73,722	10,101	60,318	23,505	23,072
Florida	139,601	127,865	11,736	77,962	61,639	61,417
Georgia	500,752	493,740	7,012	277,496	223,256	223,073
Hawaii	79,607	13,064	66,543	19,576	60,031	93
Idaho	53,932	38,185	15,747	50,328	3,604	130
Illinois	1,401,456	932,574	468,882	1,370,209	31,247	29,762
Indiana	720,206	646,889	73,317	701,761	18,445	18,186
Indian Territory	97,361	94,361	3,000	77,865	19,496	9,146
Iowa	635,298	477,273	158,025	630,665	4,633	4,441
Kansas	413,786	346,761	67,025	398,552	15,234	14,695
Kentucky	543,996	518,772	25,224	469,206	74,790	74,728
Louisiana	325,943	299,772	26,171	177,878	148,065	147,348
Maine	217,663	178,931	38,732	216,856	807	445
Maryland	321,903	279,216	42,687	260,979	60,924	60,406
Massachusetts	843,465	495,734	347,731	830,049	13,416	10,456
Michigan	719,478	457,353	262,125	712,245	7,233	5,193
Minnesota	506,794	245,768	261,026	502,384	4,410	2,168
Mississippi	349,177	344,151	5,026	150,530	198,647	197,936
Missouri	856,684	743,659	113,025	809,797	46,887	46,418
Montana	101,931	58,237	43,694	94,873	7,058	711
Nebraska	301,091	209,961	91,130	297,817	3,274	2,298
Nevada	17,710	10,523	7,187	14,652	3,058	70
New Hampshire	130,987	96,099	34,888	130,648	339	230
New Jersey	555,608	357,447	198,161	532,750	22,858	21,474
New Mexico	55,067	47,482	7,585	50,804	4,263	775
New York	2,184,965	1,346,829	838,136	2,145,057	39,908	31,425
North Carolina	417,578	415,048	2,530	289,263	128,315	127,114
North Dakota	95,217	39,344	55,873	93,237	1,980	115
Ohio	1,212,223	985,969	226,254	1,180,599	31,624	31,235
Oklahoma	109,191	100,528	8,663	101,543	7,648	4,827
Oregon	144,446	101,923	42,523	131,261	13,185	560
Pennsylvania	1,817,239	1,330,099	487,140	1,763,482	53,757	51,668
Rhode Island	127,144	72,820	54,324	124,001	3,143	2,765
South Carolina	283,325	280,221	3,104	130,375	152,950	152,860
South Dakota	112,681	67,079	45,602	107,353	5,328	184
Tennessee	487,380	477,739	9,641	375,046	112,334	112,236
Texas	737,768	650,599	87,169	599,961	137,807	136,875
Utah	67,172	41,939	25,233	65,205	1,967	358
Vermont	108,356	87,465	20,891	108,027	329	289
Virginia	447,815	436,389	11,426	301,379	146,436	146,122
Washington	195,572	126,190	69,382	183,999	11,573	1,230
West Virginia	247,970	235,036	12,934	233,129	14,841	14,786
Wisconsin	570,715	313,188	257,527	567,213	3,502	1,006
Wyoming	37,898	26,563	11,335	36,262	1,636	481

[1] Persons of negro descent, Chinese, Japanese, and Indians.

[2] Includes all persons of negro descent.

REGISTRATION OF VOTERS.—Registration of voters is required in most of the States and Territories in some form or other. It is not required in Indiana, New Hampshire or Oklahoma, and is prohibited in Arkansas and West Virginia by constitutional provision. In New York State it is required only in towns and villages of 5,000 inhabitants and over; in Illinois only in Cook County (Chicago); in Iowa in cities or towns of 3,500; Nebraska, of 7,000 and over; Kentucky, 3,000; Kansas, cities of first and second class; North Dakota, 800, in two counties; Ohio, cities of first and second class; Maine, 500; Missouri, 100,000; Wisconsin, 3,000; Texas, 10,000; Washington, 200. In Pennsylvania, Wyoming and South Dakota, if a voter fails to register he may swear in his vote on election day.

Education and Religion.

COMMON SCHOOLS OF THE UNITED STATES (1900).

[Reported by the Commissioner of Education.]

STATES AND TERRITORIES.	Pupils Enrolled.	Average Daily Attendance.	Number of Teachers.
Alabama	376,423	297,508	6,578
Arizona	16,504	10,177	399
Arkansas	314,662	195,401	6,959
California	269,736	197,395	7,605
Colorado	117,555	73,291	3,597
Connecticut	155,228	111,564	4,160
Delaware	33,174	22,693	840
District of Columbia	46,519	35,463	1,226
Florida	108,874	75,003	2,729
Georgia	482,673	298,237	10,120
Idaho	36,669	21,962	1,060
Illinois	958,911	737,576	26,343
Indiana	564,807	429,566	15,617
Indian Territory	....	....	....
Iowa	554,992	364,409	28,694
Kansas	389,583	261,783	11,513
Kentucky	501,893	308,697	9,960
Louisiana	196,169	146,323	4,157
Maine	130,918	97,697	6,445
Maryland	229,332	132,685	5,127
Massachusetts	474,891	366,136	13,575
Michigan	498,665	350,000	15,564
Minnesota	399,207	243,224	10,586
Mississippi	360,177	201,593	8,156
Missouri	719,817	460,012	16,201
Montana	39,430	24,100	1,214
Nebraska	288,227	181,874	9,463
Nevada	6,676	4,698	324
New Hampshire	65,193	47,783	2,970
New Jersey	315,055	203,003	6,689
New Mexico	36,735	22,433	966
New York	1,209,574	857,488	34,848
North Carolina	400,452	206,918	7,387
North Dakota	77,686	43,560	4,083
Ohio	829,160	616,365	26,017
Oklahoma	99,602	63,718	2,343
Oregon	89,504	64,411	3,742
Pennsylvania	1,151,880	854,640	29,390
Rhode Island	64,537	46,087	1,913
South Carolina	281,891	201,295	5,564
South Dakota	96,822	68,000	4,802
Tennessee	485,354	338,566	9,195
Texas	578,418	393,780	15,020
Utah	73,042	50,595	1,466
Vermont	55,964	47,020	3,742
Virginia	358,825	203,136	8,836
Washington	97,916	64,192	3,321
West Virginia	232,343	151,254	7,179
Wisconsin	445,142	309,800	13,063
Wyoming	14,512	10,160	570
Totals	15,341,220	10,513,518	421,288

Pupils enrolled (1903), **16,009,361**; average daily attendance, **11,054,502.**

PERSONS OF SCHOOL AGE IN THE UNITED STATES—5 TO 20 YEARS.

[Arranged from Twelfth (1900) *Census.]*

STATES AND TERRITORIES.	White.	Colored.	Total.
Alabama	394,152	339,070	733,222
Alaska	1,718	9,690	11,408
Arizona	28,371	10,497	38,868
Arkansas	380,815	148,560	529,375
California	405,868	14,213	420,081
Colorado	157 752	2,779	160 531
Connecticut	252,760	4,341	257,101
Delaware	48,782	10,853	59,635
District of Columbia	51,212	26,079	77,291
Florida	110,537	87,063	197,600
Georgia	457 958	427,767	885,725
Hawaii	23,827	9,947	33,774
Idaho	53,261	1,703	54,964
Illinois	1,565 606	24,309	1,589,915
Indiana	825,394	18,491	843,885
Indian Territory	121,420	37,705	159,125
Iowa	763,785	4,085	767,870
Kansas	507,611	19,949	527,560
Kentucky	693,455	104,572	798,027
Louisiana	276,563	261,704	538,267
Maine	198,519	634	199,153
Maryland	318,052	84,974	403,026
Massachusetts	769,710	8,400	778,110
Michigan	783,220	7,055	790,275
Minnesota	608,547	4,443	612,990
Mississippi	253,153	379,873	633,026
Missouri	1,049,414	55,844	1,105,258
Montana	61,032	4,839	65,871
Nebraska	383,229	3,155	386,384
Nevada	9,703	1,696	11,399
New Hampshire	110,708	187	110,895
New Jersey	553,230	19,693	572,923
New Mexico	64,137	5,575	69,712
New York	2,119,156	27,608	2,146,764
North Carolina	490,782	263,044	753,826
North Dakota	110,193	2,596	112,789
Ohio	1,308,510	29,835	1,338,345
Oklahoma	135,960	11,696	147,656
Oregon	129,875	3,012	132,887
Pennsylvania	1,986,430	44,741	2,031,171
Rhode Island	122,223	2,423	124,646
South Carolina	218,323	342,450	560,773
South Dakota	140,461	6,704	147,165
Tennessee	589,451	190,970	780,421
Texas	955,906	259,728	1,215,634
Utah	105,378	1,135	106,513
Vermont	98,357	257	98,614
Virginia	435,612	269,159	704,771
Washington	153,180	5,065	158,245
West Virginia	341,637	14,834	356,471
Wisconsin	726,950	3,735	730,685
Wyoming	26,607	893	27,500
Totals	22,490,211	3,620,577	26,110,788

LEADING COLLEGES AND UNIVERSITIES IN THE UNITED STATES

This information respecting the various higher institutions of learning was collected from their Presidents by the "World Almanac"

NOTE.—The † denotes institutions which admit of coeducation of the sexes.

Organized.	INSTITUTIONS.	Location.	Denominational Control.	Instructors.	Students.	Volumes in Library
1873	Add-Ran Christian University†	Waco, Tex	Christian	16	225	4,000
1896	Adelphi College†	Brooklyn,, N. Y.	Non-Sectarian.	25	166	8,500
1859	Adrian College†	Adrian, Mich	Methodist Protestant	15	164	4,000
1872	Alabama Polytechnic Institute†	Auburn, Ala	Non-Sectarian	32	412	15,579
1861	Albion College†	Albion, Mich	Methodist Episcopal	25	490	15,000
1836	Alfred University†	Alfred, N. Y	Non-Sectarian	25	240	13,700
1815	Allegheny College†	Meadville, Pa	Methodist Episcopal	18	323	15,000
1886	Alma College†	Alma, Mich	Presbyterian	23	259	17,500
1893	American University of Harriman†	Harriman, Tenn	Non-Sectarian	30	350	2,500
1891	American University†	Washington, D. C	Methodist Episcopal	...	......	8,000
1821	Amherst College	Amherst, Mass	Non-Sectarian	36	410	75,000
1872	Amity College†	College Springs, Ia	Non-Sectarian	11	146	4,000
1807	Andover Theological Seminary	Andover, Mass	Congregational	8	12	52,000
1853	Antioch College†	Yellow Springs, O	Non-Sectarian	12	118	7,000
1872	Arkansas College†	Batesville, Ark	Presbyterian	10	124	4,200
1893	Armour Institute of Technology†	Chicago, Ill	Non-Sectarian	38	1,000	15,000
1842	Asheville College	Asheville, N. C	Non-Sectarian	17	200	2,500
1869	Atlanta University†	Atlanta, Ga	Non-Sectarian	15	300	11,000
1820	Auburn Theological Seminary	Auburn, N. Y	Presbyterian	8	56	27,140
1869	Augsburg Seminary	Minneapolis, Minn	Lutheran	8	170	2,000
1860	Augustana College†	Rock Island, Ill.	Lutheran	33	619	18,000
1858	Baker University†	Baldwin, Kan	Methodist Episcopal	32	715	10,000
1846	Baldwin University†	Berea, O	Methodist Episcopal	22	372	7,000
1889	Barnard College	Manhattan Borough, N. Y	Non-Sectarian	50	400	1,500
1863	Bates College†	Lewiston, Me	Free Baptist	23	330	25,000
1845	Baylor University†	Waco, Tex	Baptist	47	936	11,000
1880	Bellevue College†	Bellevue, Neb	Presbyterian	20	125	4,000
1847	Beloit College†	Beloit, Wis	Non-Sectarian	28	355	30,000
1855	Berea College†	Berea, Ky	Non-Sectarian	33	825	18,500
1881	Bethany College†	Lindsborg, Kan	Lutheran	30	700	5,000
1854	Bethel College	Russellville, Ky	Baptist	7	104	6,000
1867	Biddle University	Charlotte, N. C	Presbyterian	14	234	13,000
1869	Boston University†	Boston, Mass	Methodist Episcopal	144	1,350	......
1794	Bowdoin College	Brunswick, Me	Congregational	40	360	70,000
1877	Brigham Young College†	Logan, Utah	Latter Day	28	510	2,700
1764	Brown University†	Providence, R. I	Non-Sectarian	75	899	115,000
1880	Bryn Mawr College	Bryn Mawr, Pa	Non-Sectarian	44	417	36,123
1872	Buchtel College†	Akron, O	Universalist	18	245	6,000
1846	Bucknell University†	Lewisburg, Pa	Baptist	32	530	22,000
1848	Burritt College†	Spencer, Tenn	Christian	13	252	4,350
1850	Butler College†	Indianapolis, Ind	Non-Sectarian	25	396	7,000
1870	Canisius College	Buffalo, N. Y	Roman Catholic	32	285	23,000
1866	Carleton College†	Northfield, Minn	Congregational	21	366	15,400
1851	Carson and Newman College†	Jefferson City, Tenn	Baptist	14	331	4,000
1870	Carthage College†	Carthage, Ill	Lutheran	14	175	5,000
1880	Case School of Applied Science	Cleveland, O	Non-Sectarian	24	350	2,000
1851	Catawba College†	Newton, N. C	Reformed	10	162	2,500
1887	Catholic University of America	Washington, D. C	Roman Catholic	27	150	35,000
1894	Cedarville College†	Cedarville, O	Reformed Presbyterian	11	95	1,200
1855	Central College†	Fayette, Mo	Methodist Episcopal South	11	271	6,500
1855	Central Pennsylvania College†	New Berlin, Pa	Evangelical	10	100	5,330
1853	Central University†	Pella, Ia	Baptist	13	235	5,000
1874	Central University	Danville, Ky	Presbyterian	112	1,280	18,000
1864	Central Wesleyan College†	Warrenton, Mo	Methodist Episcopal	14	253	6,500
1891	Charles City College†	Charles City, Ia	Methodist Episcopal	9	246	1,500
1875	Charleston College	Charleston, S. C	Non-Sectarian	7	58	14,511
1851	Christian University†	Canton, Mo	Disciples	20	280	1,000
1869	Claflin University†	Orangeburg, S. C	Methodist Episcopal	30	750	6,000
1869	Clark University†	Atlanta, Ga	Methodist Episcopal	21	550	1,000
1887	Clark University†	Worcester, Mass	Non-Sectarian	....	....	20,000
1889	Clemson Agricultural College	Clemson College, S. C	Non-Sectarian	40	510	5,500
1881	Coe College†	Cedar Rapids, Ia	Presbyterian	18	326	3,500
1818	Colby College†	Waterville, Me	Baptist	14	180	37,000
1819	Colgate University	Hamilton, N. Y	Baptist	32	360	30,000
1847	College City of New York	Manhattan Borough, N. Y	Non-Sectarian	80	2,126	34,386
1874	Colorado College†	Colorado Springs, Col	Non-Sectarian	34	515	25,000
1754	Columbia University	Manhattan Borough, N. Y	Non-Sectarian	384	4,036	311,000
1821	Columbian University	Washington, D. C	Baptist	164	1,415	20,000
1839	Concordia College	Fort Wayne, Ind	Lutheran	8	162	4,600
1890	Converse College	Spartanburg, S. C	Non-Sectarian	31	426	5,400
1857	Cornell College†	Mount Vernon, Ia	Methodist Episcopal	35	716	20,000
1868	Cornell University†	Ithaca, N. Y	Non-Sectarian	366	2,980	250,000
1889	Cotner University†	Bethany, Neb	Christian	39	237	2,000
1878	Creighton University	Omaha, Neb	Roman Catholic	58	380	11,500
1842	Cumberland University†	Lebanon, Tenn	Cumberland Presbyterian	23	237	6,000
1885	Dakota University†	Mitchell, S. Dak	Methodist Episcopal	13	368	3,000
1769	Dartmouth College	Hanover, N. H	Non-Sectarian	68	768	93,000
1837	Davidson College	Davidson, N. C	Presbyterian	13	175	15 000
1850	Defiance College†	Defiance, O	Christian	10	150	11,000

LEADING COLLEGES AND UNIVERSITIES IN THE UNITED STATES —(Continued).

Organ-ized.	INSTITUTIONS.	Location.	Denominational Control.	In-struc-tors.	Stu-dents.	Vol-umes in Library.
1833	Delaware College	Newark, Del	Non-Sectarian	19	110	12,000
1831	Denison University†	Granville, O	Baptist	34	484	21,000
1864	Denver University†	University Park, Col	Methodist Episcopal	114	878	12,000
1837	De Pauw University†	Greencastle, Ind	Methodist Episcopal	28	635	12,983
1865	Des Moines College†	Des Moines, Ia	Baptist	15	181	6,000
1783	Dickinson College†	Carlisle, Pa	Methodist Episcopal	29	490	35,000
1872	Doane College†	Crete, Neb	Congregational	10	169	8,300
1891	Drake University†	Des Moines, Ia	Christian	90	1,764	7,000
1866	Drew Theological Seminary	Madison, N. J	Methodist Episcopal	7	185	69,000
1873	Drury College†	Springfield, Mo	Non-Sectarian	21	350	25,000
1847	Earlham College†	Richmond, Ind	Orthodox Friends	14	298	31,000
1855	Elmira College	Elmira, N. Y	Presbyterian	20	200	8,000
1890	Elon College†	Elon College, N. C.	Christian	10	150	2.500
1838	Emory and Henry College	Emory, Va	Methodist Episcopal South	9	112	11,000
1836	Emory College	Oxford, Ga	Methodist Episcopal South	14	279	21,000
1883	Emporia College†	Emporia, Kan	Presbyterian	12	140	5,000
1855	Eureka College†	Eureka, Ill	Disciples	16	225	6,500
1867	Ewing College†	Ewing, Ill	Baptist	12	215	5,500
1895	Fairmount College†	Wichita, Kan	Congregational	21	233	21,000
1888	Fargo College†	Fargo, N Dak	Congregational	12	163	3,935
1886	Findlay College†	Findlay, O	Church of God	15	285	1,300
1866	Fisk University†	Nashville, Tenn	Congregational	30	502	7,142
1881	Fort Worth University†	Fort Worth, Tex	Methodist Episcopal	51	869	3,000
1787	Franklin and Marshall	Lancaster, Pa	Reformed in United States	26	403	35,702
1834	Franklin College†	Franklin, Ind	Baptist	11	178	13,000
1825	Franklin College†	New Athens, O	Non-Sectarian	10	80	500
1854	Furman University†	Greenville, S. C	Baptist	13	243	......
1844	Gale College†	Galesville, Wis	Presbyterian	10	120	10,000
1817	General Theological Seminary	Manhattan Borough, N. Y	Protestant Episcopal	14	144	30,281
1848	Geneva College†	Beaver Falls, Pa	Reformed Presbyterian	15	215	4,500
1829	Georgetown College†	Georgetown, Ky	Baptist	19	360	12,000
1789	Georgetown University	Washington, D. C	Roman Catholic	108	725	85,600
1848	Girard College	Philadelphia, Pa	Non-Sectarian	67	1,693	16,174
1872	Granbury College†	Granbury, Tex	Methodist Episcopal South	9	174	1,000
1867	Grant University†	Chattanooga, Tenn	Methodist Episcopal	72	821	6,000
1838	Greensboro College	Greensboro, N. C	Methodist Episcopal South	14	165	7,000
1794	Greenville and Tusculum College†	Tusculum, Tenn	Presbyterian	7	106	8,200
1891	Greer College†	Hoopeston, Ill	Non-Sectarian	8	230	400
1876	Grove City College†	Grove City, Pa	Non-Sectarian	18	662	5,000
1837	Guilford College†	Guilford College, N. C	Friends	10	200	6,000
1862	Gustavus Adolphus College†	St. Peter, Minn	Lutheran	21	351	10,000
1812	Hamilton College	Clinton, N. Y	Non-Sectarian	20	183	41,000
1854	Hamilton University†	St. Paul, Minn	Methodist Episcopal	67	448	6,500
1776	Hampden-Sidney College	Hampden-Sidney, Va	Non-Sectarian	9	109	15,000
1868	Hampton Institute†	Hampton, Va	Non-Sectarian	80	1,061	11,000
1828	Hanover College†	Hanover, Ind	Presbyterian	13	175	15,000
1834	Hartford Theological Seminary†	Hartford, Conn	Congregational	17	75	74,000
1636	Harvard University	Cambridge, Mass	Non-Sectarian	483	5,124	576,900
1830	Haverford College	Haverford, Pa	Friends	19	125	38,500
1850	Heidelberg University†	Tiffin, O	Reformed in United States	22	374	20,000
1884	Hendrix College	Conway, Ark	Methodist Episcopal South	10	150	6,500
1892	Henry College†	Campbell, Tex	Non-Sectarian	19	350	800
1857	Highland University†	Highland, Kan	Presbyterian	7	55	1,500
1855	Hillsdale College†	Hillsdale, Mich	Free Baptist	14	341	9,861
1850	Hiram College†	Hiram, O	Disciples	25	450	10,000
1849	Hiwassee College†	Hiwassee, Tenn	Non-Sectarian	6	135	6,000
1822	Hobart College	Geneva, N. Y	Protestant Episcopal	15	94	38,688
1843	Holy Cross College	Worcester, Mass	Roman Catholic	26	370	......
1866	Hope College†	Holland Mich	Reformed in America	14	170	15,000
1841	Howard College†	East Lake, Ala	Baptist	10	150	6,000
1890	Howard Payne College†	Brownwood, Tex	Baptist	8	214	2,000
1867	Howard University†	Washington, D. C	Non-Sectarian	55	910	20,000
1829	Illinois College	Jacksonville, Ill	Non-Sectarian	15	125	14,000
1850	Illinois Wesleyan University†	Bloomington, Ill	Methodist Episcopal	34	1,421	10,000
1820	Indiana University†	Bloomington, Ind	Non-Sectarian	70	1,137	39,000
1848	Iowa College†	Grinnell, Ia	Congregational	30	442	27,916
1868	Iowa State College†	Ames, Ia	Non-Sectarian	69	1,160	14,000
1844	Iowa Wesleyan University†	Mount Pleasant, Ia	Methodist Episcopal	24	428	7,200
1894	Jacob Tome Institute†	Port Deposit, Md	Non-Sectarian	39	550	8,000
1883	John B. Stetson University†	De Land, Fla	Baptist	38	369	12,000
1876	Johns Hopkins University	Baltimore, Md	Non-Sectarian	143	651	100,000
1855	Kalamazeo College†	Kalamazoo, Mich	Baptist	14	217	7,116
1886	Kansas Wesleyan University†	Salina, Kan	Methodist Episcopal	26	618	3,000
1858	Kentucky University†	Lexington, Ky	Christian	61	1,108	18,500
1866	Kentucky Wesleyan College†	Winchester, Ky	Methodist Episcopal South	12	150	6,500
1825	Kenyon College	Gambier, O	Protestant Episcopal	25	215	25,000
1892	Keuka College†	Keuka Park, N. Y	Free Baptist	16	160	3,000
1837	Knox College†	Galesburg, Ill	Non-Sectarian	26	665	9,000
1832	Lafayette College	Easton, Pa	Presbyterian	29	426	21,200
1858	La Grange College†	La Grange, Mo	Baptist	12	160	7,000
1857	Lake Forest University†	Lake Forest, Ill	Presbyterian	55	373	17,000
1829	Lane Theological Seminary	Cincinnati, O	Presbyterian	6	20	19,000
1863	La Salle College	Philadelphia, Pa	Roman Catholic	18	193	9,500
1847	Lawrence University†	Appleton, Wis	Interdenominational	26	451	18,410

LEADING COLLEGES AND UNIVERSITIES IN THE UNITED STATES—(Continued).

Organized,	INSTITUTIONS.	Location.	Denominational Control.	Instructors.	Students.	Volumes in Library.
1866	Lebanon Valley College†	Annville, Pa	United Brethren	25	433	10,000
1866	Lehigh University	South Bethlehem, Pa	Non-Sectarian	44	542	100,000
1891	Leland Stanford, Jr. University†	Palo Alto, Cal	Non-Sectarian	115	1,378	75,000
1870	Leland University†	New Orleans, La	Non-Sectarian	29	748	2,000
1856	Lenox College†	Hopkinton, Ia	Presbyterian	12	165	4,500
1875	Liberty College†	Glasgow, Ky	Baptist	11	233	1,000
1893	Lima College†	Lima, O	Lutheran	9	286	1,000
1865	Lincoln College†	Lincoln, Ill	Cumberland Presbyterian	14	174	3,000
1882	Livingstone College†	Salisbury, N. C	African Methodist	15	350	2,500
1851	Lombard College†	Galesburg, Ill	Universalist	20	215	7,000
1884	Macalester College†	St. Paul, Minn	Presbyterian	14	168	7,500
1853	Manhattan College	Manhattan Borough, N. Y	Roman Catholic	38	561	10,290
1835	Marietta College†	Marietta, O	Non-Sectarian	21	300	60,000
1819	Maryville College†	Maryville, Tenn	Presbyterian	15	378	12,000
1863	Massachusetts Agricultural College†	Amherst, Mass	Non-Sectarian	21	378	12,000
1865	Massachusetts Institute of Technology†	Boston, Mass	Non-Sectarian	139	1,430	53,851
1830	McCormick Theological Seminary	Chicago, Ill	Presbyterian	10	105	21,000
1828	McKendree College†	Lebanon, Ill	Methodist Episcopal	15	206	8,000
1858	McMinnville College†	McMinnville, Ore	Baptist	7	120	3,000
1837	Mercer University	Macon, Ga	Baptist	15	260	15,000
1824	Miami University†	Oxford, O	Non-Sectarian	15	144	18,000
1857	Michigan Agricultural College†	Lansing, Mich	Non-Sectarian	60	662	22,000
1800	Middlebury College†	Middlebury, Vt	Non-Sectarian	11	116	24,895
1887	Midland College†	Atchison, Kan	Lutheran	14	153	5,000
1882	Milligan College†	Milligan, Tenn	Christian	10	208	2.000
1871	Mills College	Seminary Park, Cal	Non-Sectarian	28	190	6,000
1892	Millsaps College	Jackson, Miss	Methodist Episcopal	12	230	3,000
1867	Milton College†	Milton, Wis	Seventh-Day Baptist	12	141	6,342
1878	Mississippi A. and M. College†	Starkville, Miss	Non-Sectarian	35	550	9,000
1826	Mississippi College	Clinton, Miss	Baptist	9	288	3,000
1889	Missouri Valley College†	Marshall, Mo	Cumberland Presbyterian	13	221	7,000
1856	Monmouth College†	Monmouth, Ill	United Presbyterian	18	303	15,000
1853	Moore's Hill College†	Moore's Hill, Ind	Methodist Episcopal	10	174	5,000
1890	Morningside College†	Sioux City, Ia	Methodist	25	440	4,000
1880	Morris Brown College†	Atlanta, Ga	Methodist	18	512	1,500
1887	Mount Angel College	Mount Angel, Ore	Roman Catholic	24	135	4,000
1837	Mount Holyoke College	South Hadley, Mass	Non-Sectarian	46	612	21,000
1808	Mount St. Mary's College	Emmitsburg, Md	Roman Catholic	35	215	25,000
1846	Mount Union College†	Alliance, O	Methodist Episcopal	23	532	6,191
1867	Muhlenberg College	Allentown, Pa	Lutheran	12	151	10,800
1837	Muskingum College†	New Concord, O	United Presbyterian	13	215	3,650
1887	Nebraska Wesleyan University†	University Place, Neb	Methodist Episcopal	41	600	5,000
1886	Nevada State University†	Reno, Nev	Non-Sectarian	24	392	8,300
1858	Newberry College†	Newberry, S. C	Lutheran	8	165	9,000
1874	New Orleans University†	New Orleans, La	Methodist Episcopal	28	613	5,000
1825	Newton Theological Institute	Newton Centre, Mass	Baptist	8	60	24,000
1831	New York University	New York City	Non-Sectarian	186	1,824	60,000
1856	Niagara University	Niagara Falls, N. Y	Roman Catholic	20	200	12,000
1889	North Carolina Agricultural and Mechan. Arts	West Raleigh, N. C	Non-Sectarian	27	330	3,900
1852	North Carolina College	Mount Pleasant, N. C	Lutheran	6	102	4,500
1861	Northern Illinois College†	Fulton, Ill	Non-Sectarian	10	120	2,500
1861	Northwestern College†	Naperville, Ill	Evangelical	22	360	5,690
1851	Northwestern University†	Evanston, Ill	Methodist Episcopal	244	2,629	45,764
1865	Northwestern University†	Watertown, Wis	Lutheran	9	165	4,523
1861	Norwegian Lutheran College	Decorah, Ia	Lutheran	10	185	10,248
....	Notre Dame University	See "University of Notre Dame."				
1833	Oberlin College†	Oberlin, O	Non-Sectarian	84	1,357	62,400
1877	Ogden College	Bowling Green, Ky	Non-Sectarian	5	80	3,600
1872	Ohio State University†	Columbus, O	Non-Sectarian	130	1,465	36,000
1804	Ohio University†	Athens, O	Non-Sectarian	26	405	16,000
1844	Ohio Wesleyan University†	Delaware, O	Methodist Episcopal	115	1,358	37,000
1870	Oregon Agricultural College†	Corvallis, Ore	Non-Sectarian	28	502	2,900
1865	Ottawa University†	Ottawa, Kan	Baptist	23	603	4,000
1847	Otterbein University†	Westerville, O	United Brethren	30	316	10,000
1886	Ouachita College†	Arkadelphia, Ark	Baptist	26	486	4,000
1849	Oxford College	Oxford, O	Non-Sectarian	19	150	3,000
1891	Pacific College†	Newberg, Ore	Friends	8	150	600
1854	Pacific University†	Forest Grove, Ore	Congregational	14	211	10,800
1875	Park College†	Parkville, Mo	Presbyterian	21	355	12,000
1875	Parsons College†	Fairfield, Ia	Presbyterian	18	277	5,000
1874	Peabody Normal College†	Nashville, Tenn	Non-Sectarian	35	607	15,000
1873	Penn College†	Oskaloosa, Ia	Friends	15	383	4,000
1870	Pennsylvania College	Pittsburg, Pa	Presbyterian	25	254	....
1832	Pennsylvania College†	Gettysburg, Pa	Lutheran	16	276	24,000
1862	Pennsylvania Military College	Chester, Pa	Non-Sectarian	14	133	1,600
1859	Pennsylvania State College†	State College, Pa	Non-Sectarian	46	456	17,800
1877	Philander Smith College†	Little Rock, Ark	Methodist Episcopal	14	467	1,500
1881	Pike College†	Bowling Green, Mo	Non-Sectarian	10	126	600
1854	Polytechnic Institute	Brooklyn, N. Y	Non-Sectarian	50	700	12,000
1888	Pomona College†	Claremont, Cal	Congregational	17	212	4,600
1887	Pratt Institute†	Brooklyn, N. Y	Non-Sectarian	128	3,121	74,979
1880	Presbyterian College of South Carolina†	Clinton, S. C	Presbyterian	6	65	1,900
1812	Princeton Theological Seminary	Princeton, N. J	Presbyterian	11	132	70,000
1746	Princeton University	Princeton, N. J	Non-Sectarian	102	1,340	171,256

71

LEADING COLLEGES AND UNIVERSITIES IN THE UNITED STATES —(Continued).

Organized.	INSTITUTIONS.	Location.	Denominational Control.	Instructors.	Students.	Volumes in Library.
1868	Pritchett College†	Glasgow, Mo	Non-Sectarian	9	90	750
1871	Proseminar College	Elmhurst, Ill	Evangelical	7	108	3,930
1874	Purdue University†	Lafayette, Ind	Non-Sectarian	79	1,056	11,020
1852	Racine College	Racine, Wis	Protestant Episcopal	7	115	11,000
1879	Radcliffe College	Cambridge, Mass	Non-Sectarian	112	435	17,000
1830	Randolph-Macon College	Ashland, Va	Methodist Episcopal South	13	132	10,000
1893	Randolph-Macon College	Lynchburg, Va	Methodist	23	276	4,000
1824	Rensselaer Polytechnic Institute	Troy, N. Y	Non-Sectarian	21	240	6,500
1832	Richmond College†	Richmond, Va	Baptist	15	216	14,000
1876	Rio Grande College†	Rio Grande, O	Free Baptist	6	135	3,200
1851	Ripon College†	Ripon, Wis	Non-Sectarian	21	175	8,000
1853	Roanoke College	Salem, Va	Lutheran	10	195	22,000
1856	Rock Hill College	Ellicott City, Md	Roman Catholic	22	150	8,000
1863	Roger Williams University†	Nashville, Tenn	Baptist	14	250	5,000
1885	Rollins College†	Winter Park, Fla	Non-Sectarian	21	179	3,000
1874	Rose Polytechnic Institute	Terre Haute, Ind	Non-Sectarian	21	165	10,000
1766	Rutgers College	New Brunswick, N. J	Non-Sectarian	29	222	42,656
1871	San Francisco Theological Seminary	San Anselmo, Cal	Presbyterian	7	20	16,000
1866	Scio College†	Scio, O	Methodist Episcopal	21	341	2,000
1870	Scotia Seminary	Concord, N. C	Presbyterian	17	287	2,000
1856	Seton Hall College	South Orange, N. J	Roman Catholic	22	150	40,000
1865	Shaw University†	Raleigh, N. C	Baptist	28	578	1,500
1835	Shurtleff College†	Upper Alton, Ill	Baptist	15	183	8,500
1867	Simpson College†	Indianola, Ia	Methodist Episcopal	32	629	3,050
1875	Smith College	Northampton, Mass	Non-Sectarian	83	1,043	7,000
1801	South Carolina College†	Columbia, S. C	Non-Sectarian	16	227	33,000
1859	Southern Baptist Theological Seminary	Louisville, Ky	Baptist	8	250	25,000
1856	Southern University†	Greensboro', Ala	Methodist Episcopal South	11	162	7,000
1845	Southwestern Baptist University†	Jackson, Tenn	Baptist	23	376	....
1875	Southwestern Presbyterian University	Clarksville, Tenn	Presbyterian	11	85	8,500
1873	Southwestern University†	Georgetown, Tex	Methodist Episcopal South	23	483	3,500
1885	Southwest Kansas College†	Winfield, Kan	Methodist Episcopal	14	270	2,449
1836	Spring Hill College	Mobile, Ala	Roman Catholic	20	154	25,000
1865	State College of Kentucky†	Lexington, Ky	Non-Sectarian	38	620	4,000
1847	State University of Iowa†	Iowa City, Ia	Non-Sectarian	130	1,542	58,000
1879	State University of Kentucky†	Louisville, Ky	Baptist	11	200	500
1889	St. Anselm's College	Manchester, N. H	Roman Catholic	26	104	2.400
1858	St. Benedict's College	Atchison, Kan	Roman Catholic	27	135	15,000
1848	St. Charles College	Ellicott City, Md	Roman Catholic	17	240	15,000
1847	St. Francis Xavier College	Manhattan Borough, N. Y	Roman Catholic	31	710	50,000
1870	Stevens Institute of Technology	Hoboken, N. J	Non-Sectarian	22	270	10,000
1789	St. John's College	Annapolis, Md	Non-Sectarian	13	155	8,000
1865	St. John's College	Washington, D. C	Roman Catholic	10	147	4,000
1841	St. John's College	Fordham, New York City	Roman Catholic	39	335	39,500
1857	St. John's University	Collegeville, Minn	Roman Catholic	37	243	16,000
1858	St. Lawrence University†	Canton, N. Y	Universalist	16	150	13,000
1829	St. Louis University	St. Louis, Mo	Roman Catholic	34	435	41,000
1869	St. Mary's College	St. Mary's, Kan	Roman Catholic	30	330	10,500
1821	St. Mary's College	St. Mary's, Ky	Roman Catholic	10	110	4.000
1874	St. Olaf College†	Northfield, Minn	Lutheran	17	306	3.400
1860	St. Stephen's College	Annandale, N. Y	Protestant Episcopal	9	50	17,000
1842	St. Thomas College	Villanova, Pa	Roman Catholic	26	205	7,500
1865	St. Vincent's College	Los Angeles, Cal	Roman Catholic	15	133	3,500
1869	Swarthmore College †	Swarthmore, Pa	Friends	28	206	21,000
1871	Syracuse University†	Syracuse, N. Y	Methodist Episcopal	152	1,800	47,000
1857	Tabor College†	Tabor, Ia	Congregational	13	141	2,000
1867	Talladega College†	Talladega, Ala	Congregational	25	586	6,000
1883	Tarkio College†	Tarkio, Mo	United Presbyterian	17	399	1,219
1893	Taylor University†	Upland, Ind	Methodist Episcopal	17	565	10,000
1887	Teachers' College†	Manhattan Borough, N. Y	Non-Sectarian	93	623	16,697
1870	Thiel College†	Greenville, Pa	Lutheran	10	137	8,000
1891	Throop Polytechnic Institute†	Pasadena, Cal	Non-Sectarian	24	216	1,900
1824	Trinity College	Hartford, Ct	Protestant Episcopal	25	141	43.000
1900	Trinity College	Washington, D. C	Roman Catholic	12	47	3,500
1853	Trinity College†	Durham, N. C	Methodist Episcopal South	22	167	15,000
1869	Trinity University†	Tehuacana, Tex	Cumberland Presbyterian	11	145	1,500
1855	Tufts College†	Tufts College, Mass	Universalist	125	900	43,000
1834	Tulane University†	New Orleans, La	Non-Sectarian	80	1,145	25,000
1881	Tuskegee Institute†	Tuskegee, Ala	Non-Sectarian	88	1,253	12,000
1859	Union Christian College†	Merom, Ind	Christian	15	238	3,680
1886	Union College†	Barbourville, Ky	Methodist Episcopal	8	184	1,200
1891	Union College†	College View, Neb	Non-Sectarian	23	286	3,000
1795	Union College	Schenectady, N. Y	Non-Sectarian	20	192	36,139
1836	Union Theological Seminary†	Manhattan Borough, N. Y	Presbyterian	18	125	75,000
1831	University of Alabama†	Tuscaloosa, Ala	Non-Sectarian	46	413	25,000
1891	University of Arizona†	Tucson, Ariz	Non-Sectarian	18	225	16,000
1872	University of Arkansas†	Fayetteville, Ark	Non-Sectarian	36	642	8,239
1868	University of California†	Berkeley, Cal	Non-Sectarian	230	2,932	90,000
1891	University of Chicago	Chicago, Ill	Non-Sectarian	296	3,520	300,000
1819	University of Cincinnati†	Cincinnati, O	Non-Sectarian	150	1,287	150,000
1877	University of Colorado†	Boulder, Col	Non-Sectarian	92	900	23,000
....	University of Denver†	See "Denver University."				
1801	University of Georgia	Athens, Ga	Non-Sectarian	131	1,994	30,000
1889	University of Idaho†	Moscow, Idaho	Non-Sectarian	21	329	7,200

LEADING COLLEGES AND UNIVERSITIES IN THE UNITED STATES—(Continued).

Organized.	Institutions.	Location.	Denominational Control.	Instructors.	Students.	Volumes in Library.
1868	University of Illinois†	Urbana, Ill	Non-Sectarian	334	3,000	53,792
1866	University of Kansas†	Lawrence, Kan	Non-Sectarian	80	1,150	35,800
1865	University of Maine†	Orono, Me	Non-Sectarian	53	399	19,833
1837	University of Michigan†	Ann Arbor, Mich	Non-Sectarian	233	3,800	155,524
1868	University of Minnesota†	Minneapolis, Minn	Non-Sectarian	250	3,550	84,000
1848	University of Mississippi†	Near Oxford, Miss	Non-Sectarian	21	260	18,000
1840	University of Missouri†	Columbia, Mo	Non-Sectarian	109	1.021	40,000
1895	University of Montana†	Missoula, Mont	Non-Sectarian	13	235	6,300
1785	University of Nashville†	Nashville, Tenn	Non-Sectarian	67	1,370	15,000
1869	University of Nebraska†	Lincoln, Neb	Non-Sectarian	220	2,256	51,000
1892	University of New Mexico†	Albuquerque, N. M	Non-Sectarian	10	105	5,000
....	University of New York	See "New York University."				
1795	University of North Carolian†	Chapel Hill, N. C	Non-Sectarian	45	546	33,000
1883	University of North Dakota†	Grand Forks, N. Dak	Non-Sectarian	25	375	7,000
1842	University of Notre Dame	Notre Dame, Ind	Roman Catholic	65	800	55,000
1892	University of Oklahoma†	Norman, Okla	Non-Sectarian	21	272	7,000
1880	University of Omaha†	Omaha, Neb	Presbyterian	80	325	4,000
1872	University of Oregon†	Eugene, Ore	Non-Sectarian	62	456	15,000
1852	University of the Pacific†	San Jose, Cal	Methodist Episcopal	12	247	5,000
1740	University of Pennsylvania†	Philadelphia, Pa	Non-Sectarian	268	2,475	200,000
1850	University of Rochester†	Rochester, N. Y	Baptist	19	263	37,202
1880	University of Southern California†	Los Angeles, Cal	Methodist Episcopal	12	150	4,500
1882	University of South Dakota†	Vermillion, S. Dak	Non-Sectarian	28	425	7,000
1868	University of the South	Sewanee, Tenn	Protestant Episcopal	62	518	43,789
1794	University of Tennessee†	Knoxville, Tenn	Non-Sectarian	85	721	17,100
1883	University of Texas†	Austin, Tex	Non-Sectarian	97	1,121	35,000
1850	University of Utah†	Salt Lake City, Utah	Non-Sectarian	28	643	20,000
1791	University of Vermont†	Burlington, Vt	Non-Sectarian	62	560	62,300
1825	University of Virginia	Charlottesville, Va	Non-Sectarian	55	600	48,000
1862	University of Washington†	Seattle, Wash	Non-Sectarian	53	614	13,000
1848	University of Wisconsin†	Madison, Wis	Non-Sectarian	171	2,619	70,000
1869	University of Wooster†	Wooster, O	Presbyterian	26	800	22,000
1887	University of Wyoming†	Laramie, Wyo	Non-Sectarian	16	177	11,000
1857	Upper Iowa University†	Fayette, Ia	Methodist Episcopal	26	391	7,000
1869	Ursinus College†	Collegeville, Pa	German Reformed	26	189	9,000
1802	United States Military Academy	West Point, N. Y	Non-Sectarian	71	464	45,000
1845	United States Naval Academy	Annapolis, Md	Non-Sectarian	69	333	42,000
1888	Utah Agricultural College†	Logan, Utah	Non-Sectarian	35	381	8,000
1872	Vanderbilt University†	Nashville, Tenn	Methodist Episcopal South	100	754	30,000
1861	Vassar College	Poughkeepsie, N. Y	Non-Sectarian	72	798	35,000
1806	Vincennes University†	Vincennes, Ind	Non-Sectarian	10	175	5,500
1839	Virginia Military Institute	Lexington, Va	Non-Sectarian	19	250	11,741
1871	Virginia Polytechnic Institute	Blacksburg, Va	Non-Sectarian	35	442	3,000
1831	Wabash College	Crawfordsville, Ind	Non-Sectarian	15	200	37,000
1833	Wake Forest College	Wake Forest, N. C	Baptist	16	307	15,000
1867	Walden University†	Nashville, Tenn	Methodist Episcopal	32	578	.....
1865	Washburn College†	Topeka, Kan	Congregational	23	294	8,000
1892	Washington Agricultural College	Pullman, Wash	Non-Sectarian	45	628	8,000
1802	Washington and Jefferson College	Washington, Pa	Presbyterian	23	360	16,000
1749	Washington and Lee University	Lexington, Va	Non-Sectarian	22	222	40,000
1783	Washington College†	Chestertown, Md	Non-Sectarian	9	110	2,500
1795	Washington College†	Washington College, Tenn	Presbyterian	8	135	3,000
1853	Washington University†	St. Louis, Mo	Non-Sectarian	190	2,086	7,500
1851	Waynesburg College†	Waynesburg, Pa	Cumberland Presbyterian	18	391	3.000
1870	Wellesley College	Wellesley, Mass	Non-Sectarian	80	821	52,400
1868	Wells College	Aurora, N. Y	Non-Sectarian	22	126	8,500
1831	Wesleyan University†	Middletown, Ct	Methodist Episcopal	36	350	59,000
1856	Western College†	Toledo, Ia	United Brethren	14	340	3,000
1867	Western Maryland College†	Westminster, Md	Methodist Protestant	22	250	6,000
1826	Western Reserve University	Cleveland, O	Non-Sectarian	175	800	40,000
1787	Western University of Pennsylvania†	Pittsburg, Pa	Non-Sectarian	115	869	20,000
1865	Westfield College†	Westfield, Ill	United Brethren	9	192	3,000
1853	Westminster College	Fulton, Mo	Presbyterian	11	98	6,000
1852	Westminster College†	North Wilmington, Pa	United Presbyterian	13	292	5,500
1867	West Virgiaia University†	Morgantown, W. Va	Non-Sectarian	57	8,857	15,200
1860	Wheaton College†	Wheaton, Ill	Congrepational	18	240	3,000
1859	Whitman College†	Walla Walla, Wash	Congregational	19	300	9,000
1856	Wilberforce University†	Wilberforce, O	Methodist Episcopal	22	360	10,000
1873	Wiley University†	Marshall, Tex	Methodist Episcopal	15	439	4,200
1844	Willamette University†	Salem, Ore	Methodist Episcopal	49	447	4,817
1693	William and Mary College	Williamsburg, Va	Non-Sectarian	16	184	10,000
1849	William Jewell College	Liberty, Mo	Baptist	23	352	12,000
1793	Williams College	Williamstown, Mass	Non-Sectarian	34	393	47,000
1870	Wilmington College†	Wilmington, O	Friends	11	143	4,000
1870	Wilson College	Chambersburg, Pa	Presbyterian	30	298	7,000
1845	Wittenberg College†	Springfield, O	Lutheran	20	456	12,000
1854	Wofford College†	Spartanburg, S. C	Methodist Episcopal South	10	257	10,000
1888	Woman's College	Baltimore, Md	Methodist Episcopal	30	319	70,600
1865	Worcester Polytechnic Institute	Worcester, Mass	Non-Sectarian	32	275	7,000
1701	Yale University	New Haven, Ct	Non-Sectarian	280	2,680	315,000
1881	Yankton College†	Yankton, S. Dak	Congregational	16	284	7,000
1890	York College†	York, Neb	United Brethren	11	342	1,000

ILLITERACY IN THE UNITED STATES.

Males of 21 Years and Over Who Cannot Read Nor Write.

[*Compiled from the Twelfth* (1900) *Census.*]

States and Territories.	White.	Colored.	Total.
Alabama	31,614	108,035	139,649
Alaska	584	10,151	10,735
Arizona	4,776	5,757	10,533
Arkansas	23,523	39,092	62,615
California	18,176	15,332	33,508
Colorado	6,847	842	7,689
Connecticut	18,265	719	18,984
Delaware	3,945	3,593	7,538
District of Columbia	944	6,108	7,052
Florida	6,558	24,291	30,849
Georgia	32,456	125,791	158,247
Hawaii	3,335	24,028	27,363
Idaho	1,165	1,771	2,936
Illinois	61,559	5,882	67,481
Indiana	34,903	5,113	40,016
Indian Territory	8,477	7,005	15,482
Iowa	15,981	1,080	17,061
Kansas	9,846	4,368	14,214
Kentucky	65,517	37,011	102,528
Louisiana	32,039	90,599	122,638
Maine	13,372	220	13,952
Maryland	15,678	24,674	40,352
Massachusetts	51,785	1,909	53,694
Michigan	37,512	1,718	39,230
Minnesota	19,223	1,562	20,785
Mississippi	12,472	105,582	118,054
Missouri	45,410	14,917	60,327
Montana	3,098	2,802	5,900
Nebraska	6,841	547	7,388
Nevada	475	1,796	2,271
New Hampshire	10,228	67	10,295
New Jersey	33,955	4,350	38.305
New Mexico	12,904	3,081	15,585
New York	124,217	5,787	130,004
North Carolina	54,474	68,184	122.658
North Dakota	3,880	1,278	5,158
Ohio	51,769	6,929	58,698
Oklahoma	3,080	3,399	6,479
Oregon	2,160	4,818	6,978
Pennsylvania	130,194	9,788	139,982
Rhode Island	11,186	489	11,675
South Carolina	15,865	83,651	99,516
South Dakota	2,693	2,749	5,442
Tennessee	52,418	53,433	105,851
Texas	51,790	61,993	113,783
Utah	1,619	851	2,470
Vermont	8,479	65	8.544
Virginia	36,493	76,860	113,353
Washington	3,042	3,593	6,635
West Virginia	26,472	5,594	32,066
Wisconsin	29,659	1,477	31,136
Wyoming	1,040	596	1,636
Totals	1,253,993	1,071,327	2,325,320

NEWSPAPERS IN THE UNITED STATES

[*Rowell's Directory.*]

State or Territory.	Daily.	Weekly.	Total.[1]
Alabama	20	190	239
Alaska	2	6	8
Arizona	11	38	50
Arkansas	25	214	270
California	111	435	681
Colorado	42	253	329
Connecticut	46	98	190
Delaware	6	28	41
District of Columbia	4	30	84
Florida	11	124	159
Georgia	26	280	359
Hawaii	5	10	23
Idaho	4	59	72
Illinois	182	1,104	1,726
Indiana	149	592	860
Indian Territory	9	81	94
Iowa	63	880	1,082
Kansas	49	596	707
Kentucky	28	239	320
Louisiana	24	146	193
Maine	15	96	155
Maryland	17	145	208
Massachusetts	86	334	619
Michigan	77	604	811
Minnesota	36	560	683
Mississippi	14	181	224
Missouri	84	780	1,045
Montana	12	74	95
Nebraska	28	523	608
Nevada	7	20	30
New Hampshire	14	72	98
New Jersey	48	282	374
New Mexico	4	45	53
New York	185	1,018	1,933
North Carolina	27	180	258
North Dakota	7	142	158
Ohio	168	793	1,212
Oklahoma	13	126	153
Oregon	17	144	193
Pennsylvania	197	903	1,393
Philippine Islands	4	....	4
Porto Rico	8	....	8
Rhode Island	12	30	58
South Carolina	10	94	131
South Dakota	17	235	273
Tennessee	14	220	288
Texas	71	646	815
Utah	5	51	73
Vermont	9	55	77
Virginia	31	161	244
Washington	16	174	226
West Virginia	20	154	191
Wisconsin	64	520	657
Wyoming	4	32	39
Total	2,158	14,827	20,879
Canada	110	643	930
Newfoundland	3	5	8
Cuba	11	9	27

[1] Includes all periodicals

LIBRARIES OF OVER 1,000 VOLUMES IN THE UNITED STATES

[*Reported by Commissioner of Education. Per cent of Increase is over Report of* 1896.]

STATES OR TERRITORIES.	Libraries Reporting.	Number of Volumes.	Pamphlets.	Per cent of Increase.	Books issued for Home Use.
Alabama	43	196,521	29,588	67.48	30,412
Arizona	5	27,414	4,590	56.90	7,800
Arkansas	28	181,884	34,930	107.63	23,082
California	212	1,781,858	136,673	36.26	2,673,358
Colorado	11	27,732	3,336	108.94	16,796
Connecticut	197	1,547,667	258,358	40.43	1,884,958
Delaware	13	126,647	22,663	51.20	178,380
District of Columbia	74	2,504,783	570,186	39.63	249,164
Florida	16	67,739	4,600	55.70	2,600
Georgia	55	296,855	35,759	9.93	56,343
Idaho	9	22,856	3,150	75.50	4,341
Illinois	309	2,472,710	489,899	35.67	3,073,590
Indiana	164	992,189	67,559	51.56	1,303,854
Indian Territory	3	4,982	3,650	125.94	....
Iowa	170	844,371	50,392	38.94	918,826
Kansas	104	515,118	137,303	70.13	279,442
Kentucky	76	425,729	50,412	33.60	104,507
Louisiana	40	253,074	40,475	18.91	104,800
Maine	111	701,982	115,915	29.36	708,105
Maryland	80	1,175,253	175,792	19.28	903,542
Massachusetts	571	6,633,285	1,150,277	21.70	8,014,899
Michigan	193	1,298,708	61,082	33.20	1,707,814
Minnesota	123	691,893	68,611	48.03	1,255,452
Mississippi	30	160,733	23,342	3.68	5,552
Missouri	141	934,111	142,344	35.98	1,284,971
Montana	14	111,119	32,898	61.68	285,342
Nebraska	51	297,691	55,120	31.29	380,297
Nevada	6	66,581	....	33.20	11,250
New Hampshire	143	723,500	155,609	21.44	840,533
New Jersey	154	1,150,744	160,108	43.64	1,727,574
New Mexico	11	27,732	3,366	108.94	16,796
New York	718	7,496,509	1,803,828	42.75	8,972,975
North Carolina	57	285,251	28,125	30.40	30,726
North Dakota	16	48,631	2,700	105.35	600
Ohio	266	2,055,589	287,210	29.45	3,287,709
Oklahoma	8	24,706	5,690	379.08	3,975
Oregon	24	128,997	25,098	43.03	85,554
Pennsylvania	401	3,974,577	538,819	34.06	3,990,887
Rhode Island	82	700,672	136,684	20.74	574,723
South Carolina	39	256,571	39,091	10.39	73,777
South Dakota	26	72,970	20,760	109.30	34,339
Tennessee	77	392,221	69,711	23.12	82,771
Texas	69	246,881	41,022	88.14	65,371
Utah	13	68,807	19,694	38.77	61,782
Vermont	96	481,551	48,649	34.06	430,637
Virginia	64	489,646	37,211	43.50	129,152
Washington	31	136,314	39,666	77.85	249,952
West Virginia	23	100,492	8,700	117.81	102,519
Wisconsin	165	987,729	198,941	57.67	1,831,182
Wyoming	8	43,249	6,900	81.83	19,715
Totals	5,383	44,591,851	7,503,588	34.91	48,410,128

Largest Libraries.—There are now 132 libraries in the United States, containing over 50,000 volumes. Of these the largest is the National, or Library of Congress, with 1,000,000 volumes. The largest State library is that of New York, at Albany, with 423,290 volumes. The largest public libraries are those at Boston, 772,432 volumes; New York 500,000; Chicago, 258,498; Philadelphia, 207,585; Cincinnati, 203,864; Baltimore. 202,118; Cleveland, 165,808; New York (Free), 163,465; Detroit, 157,510; Buffalo, N. Y., 155,000; Brooklyn, N. Y., 149,676; St. Louis, 135,000; Worcester, Mass., 128 196; San Francisco, 126,274; Milwaukee, 119,684; Springfield, Mass., 115,091; Minneapolis, Minn., 114,000; Pittsburg (Carnegie), 104,844. The largest university library is that of Harvard, with 560,000 volumes; followed by that of the University of Chicago, with 329,778; Columbia University, N. Y., 295,000; Yale, 285,000; Cornell, 225,022; Pennsylvania, 145,460; Princeton, 126,149; Brown, 110,000. Of the company, corporate and institutional libraries, the largest is the A. W. T. Music, N. Y., with 500,000 volumes; Mercantile, New York, 262,043; Library Company of Philadelphia, 201,184; Sutro, San Francisco, 200,000; Atheneum, Boston, 196,000; Mercantile, Philadelphia, 185,000; Newberry, Chicago, 157,131; Peabody, Baltimore, 137,000; Mercantile, St. Louis, 113,587; Historical, Madison, Wis., 110,000; Mechanics and Tradesman's, N. Y., 109,955; Wagner Free, Philadelphia, 104,844; Mechanics' Institute, San Francisco, 100,170; American Antiquarian, Worcester, Mass., 100,000.

AMERICAN LIBRARY ASSOCIATION.

The American Library Association is a national body, organized in 1876 and incorporated in 1879. The motto of the Association is: "The best reading for the largest number, at the least cost." It seeks in every practicable way to develop and strengthen the public library as an essential part of the American educational system, and to thereby bring the best reading within reach of all. It now has a membership of over 1,000, and it has held its annual meetings in various parts of the country to accommodate all sections. Its twenty-fourth general meeting was held near Boston, Mass., June, 1902.

BOOK PRODUCTION OF THE UNITED STATES.

[Not including Government Works and Cheap Publications of Minor Moment.]

[Records of Publisher's Weekly.]

SUBJECTS.	1897.	1898.	1899.	1900.	SUBJECTS.	1897.	1898.	1899.	1900.
Fiction	869	905	932	1,278	Biography and Memoirs	205	195	310	274
Law	509	456	489	543	Fine Arts and Illustrated Books	139	163	214	267
Juveniles	369	373	448	527	Physical and Mathematical Science	188	174	204	184
Literary, Historical, Miscellaneous	415	332	346	543	Useful Arts	110	112	73	153
Theological and Religious	492	446	420	448	Sports and Amusements	43	42	48	51
Education and Language	431	377	429	641	Domestic and Rural	57	43	58	76
Poetry and Drama	247	303	333	400	Humor and Satire	22	20	27	34
History	238	282	268	257	Mental and Moral Philosophy	76	51	153	101
Medical Science and Hygiene	153	188	123	218					
Social and Political Science	196	257	238	269					
Description and Travel	169	167	218	192	Totals	4,928	4,886	5,321	6,356

NOTE.—Of the books of 1900, 3,876 were by American authors; 1,390 were reprints of foreign authors; 1,090 by British authors, imported bound or in sheets for binding.

PRINTING AND PUBLISHING BUSINESS IN THE UNITED STATES.

[From Census Reports.]

	1900.	1890.	Per Cent of Increase.
Number of establishments	22,312	16,566	34.7
Capital	$292,517.072	$195,387,445	49.7
Salaried officials, clerks, etc., number	37,799	28,391	33.1
Salaries	$36,090,719	$26,272,756	37.4
Wage-earners, average number	162,992	136,836	19.1
Total wages	$84,249,954	$78,810,319	6.9
Men, sixteen years and over	125,964	110,434	14.1
Wages	$74,288,521	$70,310,415	4.2
Women, sixteen years and over	28,765	19,026	51.2
Wages	$8,878,073	$6,604,046	34.4
Children, under sixteen years	8,263	7,336	12.0
Wages	$1,083,360	$895,858	20.9
Miscellaneous expenses	$55,897,929	$46,971,768	19.0
Cost of materials used	$86,856,290	$68,658,915	26.1
Value of products	$347,055,050	$275,452,515	26.0

CIRCULATION OF NEWSPAPERS AND PERIODICALS,

[From Census Reports.]

YEAR.	ALL CLASSES.			DAILY.		TRIWEEKLY.		SEMIWEEKLY.	
	Number.	Total Circulation per Issue.	Aggregate Number of Copies Issued During the Census Year.	Number.	Total Circulation per Issue.	Number.	Total Circulation per Issue.	Number	Total Circulation per Issue.
1900	18,226	114,299,334	8,168,148,749	2,226	15,102,156	62	228,610	637	2,832,868
1890	14,901	69,138,934	4,681,113,530	1,610	8,387,188	34	50,067	194	561,743
1880	11,314	31,779,686	2,067,848,209	971	3,566,395	73	68,086	133	264,910
1870	5,871	20,842,475	1 508,548,250	574	2,601,547	107	155,105	115	247,197
1860	4,051	13,663,409	927,951,548	387	1,478,435	86	107,170	79	175,165
1850	2,526	5,142,177	426,409,978	254	758,454	115	75,712	31	53,511

YEAR.	WEEKLY.		MONTHLY.		QUARTERLY.		ALL OTHER CLASSES.	
	Number.	Total Circulation per Issue.	Number.	Total Circulation per Issue.	Number	Total Circulation per Issue.	Number.	Total Circulation per Issue.
1900	12,979	39,852,052	1,817	39,519,897	237	11,217,422	68	5,546,329
1890	10,814	28,954,515	1,734	19,624,038	225	8,124,500	290	3,436,883
1880	8,633	16,266,830	1,167	8,139,881	116	1,944,299	221	1,379,285
1870	4,295	10,594,643	622	5,650,843	49	211,670	109	1,381,470
1860	3,173	7,581,930	280	3,411,959	30	101,000	16	807,750
1850	1,902	2,944,629	100	740.651	19	25.875	105	543,345

RELIGIOUS DENOMINATIONS IN THE UNITED STATES.

(Compiled from latest reports.)

Denominations.	Ministers.	Churches.	Communicants.
Adventists:			
Evangelical	34	30	1,147
Advent Christian	883	580	25,816
Seventh-Day	372	1,470	55,316
Church of God	19	29	647
Life and Advent Union	60	33	3,000
Church of God in Jesus Christ	94	95	2,872
Armenians	15	21	8,500
Baptists:			
Regular, North	7,415	9,374	973,820
Regular, South	12,058	18,963	1,608,413
Regular, Colored	14,351	15,654	1,864,600
Six Principle	14	18	937
Seventh-Day	119	115	8,991
Freewill	1,619	1,486	85,109
Original Freewill	118	167	11,864
General	450	550	28,000
Separate	113	103	6,479
United	25	204	13,209
Church of Christ	80	152	8,254
Primitive	2,040	3,222	121,347
Old Two Seed in the Spirit Predestinarian	300	473	12,851
Brethren (River):			
Brethren in Christ	152	78	4,000
Old Order, or Yorker	7	8	214
United Zion's Children	20	25	525
Brethren (Plymouth):			
Brethren (I.)	....	109	2,289
Brethren (II.)	....	88	2,419
Brethren (III.)	....	86	1,235
Brethren (IV.)	....	31	718
Catholics:			
Roman Catholics	11,636	12,062	8,610,226
Polish Branch	19	18	15,000
Old Catholic	6	5	10,000
Reformed Catholics	6	6	1,500
Catholic Apostolic	95	10	1,394
Chinese Temples	....	47	....
Christadelphians	....	63	1,277
Christians	1,248	1,520	112,835
Christian Catholic (Dowie)	55	50	40,000
Christian Missionary Association	10	13	754
Christian Scientists	12,000	600	1,000,000
Christian Union	183	294	18,214
Church of God (Winnebrennerian)	460	580	38,000
Church Triumphant (Schweinfurth)	....	12	384
Church of the New Jerusalem	143	173	7,679
Communistic Societies:			
Shakers	....	15	1,728
Amana	....	7	1,600
Harmony	....	1	250
Separatists	....	1	200
Altruists	....	1	25
Church Triumphant (Koreshan Ecclesia)	....	5	205
Adonai Shomo	....	1	20
New Icaria	....	1	21
Congregationalists	5,614	5,604	629,874
Disciples of Christ	6,528	10,528	1,149,982
Dunkards:			
German Baptists (Conservatives)	2,612	850	95,000
German Baptists (Old Order)	150	100	3,500
German Baptists (Progressive)	231	173	12,787
Seventh-Day Baptists (German)	5	6	194
Episcopalians:			
Protestant Episcopal	4,961	6,686	716,431
Reformed Episcopal	103	104	9,743
Evangelical Bodies:			
Evangelical Association	1,052	1,806	118,865
United Evangelical Church	478	985	60,993
Friends:			
Friends (Orthodox)	1,279	820	91,868
Friends (Hicksite)	115	201	21,992
Friends (Wilburite)	38	52	4,329
Friends (Primitive)	11	9	232
Friends of the Temple	4	4	340
German Evangelical Protestants	44	52	36,156
German Evangelical Synod	909	1,129	203,574
Greek Church:			
Greek Orthodox	4	4	20,000
Russian Orthodox	41	58	45,000
Jews	201	570	1,058,135
Latter-Day Saints:			
Church of Jesus Christ of Latter-Day Saints	1,700	796	300,000
Reorganized Church of Jesus Christ of Latter-Day Saints	2,200	600	45,500
Lutherans:			
(General Bodies:)			
General Synod	1,226	1,568	194,442
United Synod in the South	215	390	38,639
General Council	1,156	2,019	370,409
Synodical Conference	2,029	2,650	581,029
(Independent Synods:)			
United Norwegian	354	1,083	126,872
Joint Synod of Ohio	457	604	77,362
Buffalo	25	39	4,600
Hauge's, Norwegian	97	205	11,483
Texas	11	14	1,700
German of Iowa	402	824	74,058
Norwegian Lutheran	272	725	67,208
Michigan	56	86	7,860
Danish in America	47	66	10,000
Icelandic	8	26	3,350
Immanuel	45	50	6,118
Suomai, Finnish	11	50	5,925
Norwegian Free	125	375	37,500
Danish United	84	151	8,506
Independent Congregations	85	200	25,000
Waldenstromians	140	150	20,000
Mennonites:			
Mennonite	418	288	22,443
Bruederhoef	9	5	352
Amish	365	124	13,051
Old Amish	71	22	2,038
Apostolic	2	2	209
Reformed	43	34	1,680
General Conference	138	79	10,395
Church of God in Christ	18	18	471
Old (Wisler)	17	15	610
Bundes Conference	41	16	3,050
Defenceless	20	11	1,176
Brethren in Christ	45	82	2,953

RELIGIOUS DENOMINATIONS IN THE UNITED STATES—(Continued).

DENOMINATIONS.	Ministers.	Churches.	Communicants.
METHODISTS:			
Methodist Episcopal	17,521	26,021	2,716,437
Union American M. E.	63	61	2,675
African Methodist Episcopal	5,659	5,775	673,504
African Union Meth. Protestant	80	70	2,000
African Methodist Episcopal Zion	3,155	2,906	536,271
Methodist Protestant	1,647	2,400	181,316
Wesleyan Methodist	587	506	17,201
Methodist Episcopal, South	6,041	14,244	1,457,864
Congregational Methodist	210	240	20,000
Congregational Meth. (Colored)	5	5	319
New Congregational Methodist	20	17	1,059
Zion Union Apostolic	30	27	2,346
Colored Methodist	2,187	1,300	199,206
Primitive Methodist	65	92	6,470
Free Methodist	944	1,122	28,588
Independent Methodist	8	14	2,569
Evangelist Missionary	87	13	4,600
MORAVIANS	118	111	14,817
PRESBYTERIANS:			
Presbyterian in U.S.of A.(North)	7,335	7,469	973,433
Cumberland Presbyterian	1,734	2,957	180,192
Cumberland Presbyter'n (Colored)	400	150	39,000
Welsh Calvinistic	105	185	12,000
United Presbyterian	918	911	115,901
Presbyterian in U.S.of A.(South)	1,461	2,959	225,890
Associate Ch. of North America	12	31	1,053
Associate Ref. Synod of the South	104	131	11,344
Reform Pres. in the U.S.(Synod)	124	113	9,790
Reform Pres. in N.A.(Gen.Synod)	33	36	5,000
PRESBYTERIANS (Continued):			
Reform Presb. (Covenanted)	1	1	40
Reform Presb. in U.S. and Canada	1	1	608
REFORMED:			
Reformed in America (Dutch)	698	619	107,594
Reformed in U. S. (German)	1,082	1,660	243,545
Christian Reformed	96	145	18,096
SALVATION ARMY	2,689	753	40,000
SCHWENKFELDIANS	3	4	306
SOCIAL BRETHREN	17	20	913
SOCIETY FOR ETHICAL CULTURE	....	4	1,064
SPIRITUALISTS	....	334	45,030
THEOSOPHICAL SOCIETY	....	40	695
UNITED BRETHREN:			
United Brethren in Christ	1,897	4,229	243,841
United Brethren (Old Constitution)	670	817	226,643
UNITARIANS	550	459	71,000
UNIVERSALISTS	735	764	48,426
VOLUNTEERS OF AMERICA	500	200	....
INDEPENDENT CONGREGATIONS	54	156	14,126

AUXILIARY RELIGIOUS BODIES AND AGENCIES.

SUNDAY SCHOOLS.—These powerful religious agencies, organized and conducted under the auspices of nearly every Christian denomination, numbered in the United States, according to the latest authentic report—that made to the World's Third Sunday School Convention held in London, 1898—132,697 schools, 1,394,630 teachers, and 10,893,523 scholars. According to the same report, the total number of Sunday School teachers and scholars for the world was 24,919,313.

YOUNG MEN'S CHRISTIAN ASSOCIATIONS.—These religious agencies were first instituted in London in 1844, and in the United States at Boston in 1851. They spread rapidly in this country, being made attractive to young men by adding to religious instruction the encouragement of commodious buildings, libraries, gymnasiums, and philanthropies. By 1902, the number of associations in the world had reached 6.335, of which 1,575 were in North America. The membership of these American associations had reached 323,224, occupying 414 buildings of their own, valued at $21,445,415, having 736 libraries containing 544,215 volumes, and making a total annual outlay for running expenses of $3.535,928.

YOUNG WOMEN'S CHRISTIAN ASSOCIATIONS.—These, like similar ones for young men, have nearly a world-wide existence, and an American membership of 52,000. In 1894, the national associations of nine countries—Canada, Germany, Italy, France, Norway, Sweden, Great Britain, United States and India united to form a World's Y. W. C. A. These associations classify their objects and work under four heads: *Physical*—Gymnastic training, health talks, holiday excursions, outing clubs. *Social*—Receptions, home socials, musical and literary entertainments, helpful companionships, noon rests, luncheons, boarding clubs, employment bureaus. *Intellectual*—Libraries, educational classes, lecture courses, concerts, art clubs. *Spiritual*—Bible training classes, evangelical meetings, personal work, Gospel work.

AMERICAN TRACT SOCIETY.—Was founded in 1825 for the purpose of publishing books and tracts representing the best Christian literature approved by all Evangelical Christians. Since its foundation it has printed, in twenty languages, 479,400,000 copies.

AMERICAN BIBLE SOCIETY.—A purely charitable institution, organized in 1816, for the purpose of encouraging a wider circulation of the Scriptures without note or comment. The issues for 1901-1902 were 1,723,791 copies, and since its foundation, 70,677,225 copies. Its issues include many in foreign tongues.

CHRISTIAN ENDEAVOR.—The first Christian Endeavor Society was formed February 2, 1881, in Portland, Me., by Rev. F. E. Clark, pastor of the Williston Church, for the purpose of training converts for the duties of church membership. It is the church training its young, and its motto, "For Christ and the Church." It numbered, November, 1902, 62,194 societies with a membership of 3,700,000, chiefly in the United States, Canada, Australia, Great Britain, China, Japan, and in all missionary lands.

AMERICAN BOARD OF FOREIGN MISSIONS.—This, the oldest foreign mission society in the United States, was organized in 1810. Since its organization it has expended over $30,000,000, and sent out over 2,300 missionaries, of whom 544 are now in service. It supports over 500 churches in foreign lands, whose converts number nearly 160,000. Its total missionary force, including preachers, teachers and native assistants, is over 4,000.

SALVATION ARMY.—Organized in London by Rev. William Booth in 1865. Present name adopted, 1878. It unites the Religious with the Social Relief Institution, and works through corps organized and disciplined after the army fashion. It has 7,296 corps, officered by 15,300 officers, and operating 47 countries in 34 languages. In the United States it operates 692 corps by 2,341 officers, and administers 27 slum posts, 18 rescue homes, 102 food shelters, 6 working women's hotels, 6 wood and coal yards, 3 farm colonies and 2 children's homes.

VOLUNTEERS OF AMERICA.—Founded by Ballington Booth, son of William Booth, in 1896, and for practically the same purpose as The Salvation Army. The Volunteers operate six regiments under command of as many officers, and claim that the annual attendance at their Sunday and week-night meetings aggregates 4,000,000 people.

EPWORTH LEAGUE.—Was organized as an auxiliary to the Methodist Church, May, 1889. In October, 1902, it numbered 29,600 chapters with a membership of 2,000,000. The Epworth League of M. E. Church South was organized in 1891. It numbered (1902) 5,838 chapters and 308,580 members.

Money, Finance and Commerce
OF THE
United States

The Gold and Currency Measurement of our Immense Enterprise, Wealth and Resources :: :: :: ::

Miracles Worked by The Nimble Dollar

Uncle Sam's Bountiful Exchequer

All Money Measurements of National Activity, among which are found:

All forms of Metallic Money
Paper Money of every kind
The Public Debt for Thirty Years
U. S. Receipts from Every Source
What Uncle Sam Spends Annually
Value of Imports and Exports since 1790
Value of Imports by Articles
Internal Revenue Receipts by States
Internal Revenue and Collection Expenses
Customs Revenue and Collection Expenses
National Banks of U. S.
Their Number, Loans, Capital, Surplus, Deposits
Money in Circulation in U. S.
Value of Exports and Sources of Same
Quantity and Value of Exports by Articles
Savings Banks of U. S.
Their Number, Deposits, and Resources
Foreign Values of U. S. Money
Growth of Bank Deposits
Bullion Value of the Silver Dollar
U. S. Coinage Since 1793
Stock of Gold and Silver in U. S.
Business of U. S. Mints
Deposits of Gold in U. S. Mints since 1873
Failures in U. S. since 1879
Building and Loan Associations

Latest official Government statistics only. A succinct and unique Exhibit of Wealth and Resources, never before equaled in fullness and excellence of grouping.

Money, Finance and Commerce of the United States.

United States Money.

Metallic Money.

The Standard.—The standard or measure of value of the United States is the dollar, equal to 23.22 grains of pure gold. This 23.22 grains represents nine-tenths of the metal in a gold dollar, the other tenth being alloy. All our gold coins contain pure gold in this proportion, nine-tenths pure, one-tenth alloy. Our gold coins are the only form of money we have that is actually worth its face as a commodity. For this reason they are accepted in a foreign country at par, either as money or merchandise. Gold coin is a legal tender at its nominal or face value for all debts, when its weight and purity conform to law; when they do not, it is a legal tender in proportion only to its weight and purity.

Gold Coins.—The gold coins of the United States are of six kinds. 1. The gold dollar, whose coinage ceased in 1890. 2. The two-and-a-half (2½) dollar piece, or quarter eagle. 3. The three (3) dollar piece, whose coinage ceased in 1890. 4. The five (5) dollar piece, or half eagle. 5. The ten (10) dollar piece, or eagle. 6. The twenty (20) dollar piece, or double eagle.

Silver Coins.—Our silver dollar must by law weigh 412½ grains, and be of nine-tenths (9-10) purity; *i. e.* it must contain 371¼ grains of pure silver. This amount of pure silver was once approximately worth 23.22 grains of pure gold; but since silver has grown so cheap as that 371¼ grains of it are worth but a little over half of 23.22 grains of pure gold, our silver dollar is not received as a dollar in foreign countries, and only passes at home on the strength of the credit of the government. Silver dollars are a legal tender at their face value in payment of all debts, without regard to amounts, except where otherwise stipulated in the contract.

The other silver coins are called subsidiary. They are the half-dollar, quarter-dollar, and ten-cent piece or dime. They are all of nine-tenths purity, and are a legal tender for amounts not exceeding $10 in any one payment.

The further minor coins, intended only to make up fractional parts of a dollar, are the five-cent nickel piece and the copper cent. They are of smaller proportionate intrinsic value than the silver coins, and are a legal tender to the extent of 25 cents.

Gold coins and standard silver dollars being standard coins of the United States are not redeemable. Subsidiary and minor coins may be presented in sums or multiples of twenty dollars to the Treasurer of the United States for redemption or exchange into lawful money.

Paper Money.

Kinds.—There are five kinds of paper money in use in the United States. 1. Gold certificates. 2. Silver certificates. 3. Treasury notes issued under the act of July 14, 1890. 4. United States notes issued under the act of March 3, 1863. These are also called "greenbacks" and "legal tenders." 5. National Bank notes.

Gold Certificates.—These are issued in denominations of $20 and upward. They read, "This certifies that there have been deposited in the Treasury of the United States —— dollars in gold, payable to the bearer on demand."

Gold certificates are not legal tender, but are receivable for all public dues. Being receipts for gold coin, they are redeemable in such by the Treasurer and all the assistant treasurers of the United States.

Silver Certificates.—Silver certificates are issued in denominations of $1, $2, $5 and $10. But the Secretary of the Treasury is authorized by the act of March 14, 1900, to issue said certificates in denominations of $20, $50 and $100, provided the aggregate of such certificates does not exceed 10 per cent of the total volume of said certificates. Their form is: "This certifies that there have been deposited in the Treasury of the United States —— silver dollars, payable to the bearer on demand."

Silver certificates are not legal tender, but are receivable for all public dues. Being receipts for standard silver dollars deposited, they are redeemable only in such dollars.

Treasury Notes.—Treasury notes have been issued in denominations of $1, $2, $5, $10, $20, $50, $100, $500, $1,000, $5,000 and $10,000, but the law now prohibits their issue except in denominations of ten dollars and upward. The Treasury note reads: "The United States of America will pay to bearer —— dollars in coin." It is, therefore, what is called a "coin" obligation, and is payable in gold when gold is demanded, and in silver when silver is demanded, but they must be presented in sums of not less than fifty dollars. Treasury notes of 1890 are a legal tender for all debts, public and private, except where otherwise stipulated in the contract.

United States Notes.—These have been issued in denominations of $1, $2, $5, $10, 20, $50, $100, $500, $1,000, $5,000 and $10,000, but the law now prohibits their issue except in denominations of ten dollars and upward. They read thus: "The United States will pay the bearer —— dollars." They are a legal tender for all debts, public and private, except duties on imports and interest on the public debt. They are redeemable in "coin," when presented in sums of not less than fifty dollars, by the assistant treasurer at New York and San Francisco.

National Bank Notes.—National bank notes are issued in denominations of $5 and upward, and the act of March 14, 1900, provides that not more than one-third in amount of the circulating notes of any National Bank shall be of the denomination of five dollars. In form they read: "National currency. Secured by United States bonds deposited with the Treasurer of the United States." "The —— National Bank will pay the bearer on demand —— dollars." National bank notes are not a legal tender, but are receivable for all public dues except duties on imports and may be paid out by the government for all salaries and other debts or demands owing by the United States to individuals, corporations and associations within the United States, except interest on the public debt and in the redemption of the National currency. All National Banks are required by law to receive the notes of other National Banks at par. By the currency act of 1900, National banks are allowed to issue notes to the full amount of the bonds they deposit. Their notes are redeemable in lawful money of the United States by the Treasurer, but not by the assistant treasurers. They are also redeemable at the bank of issue. In order to provide for the redemption of its notes when due, every National Bank is required to keep on deposit with the Treasurer a sum equal to 5 per cent of its circulation.

PUBLIC DEBT; AMOUNT AND CONDITIONS FOR THIRTY-FIVE YEARS.

[From Reports of Secretary of Treasury.]

July 1.	Debt on which interest has ceased.	Debt bearing no interest.	Outstanding Principal.	Cash in the Treasury	Principal of Debt less Cash in Treasury.	Population of the United States.	Debt per Capita.	Interest per Capita.
1868	$1,197,340.89	$408,401,782.61	$2,611,687,851.19	$130,834,437.96	$2,480,853,413.23	36,973,000	$67.10	$3.48
1869	5,260,181.00	421,131,510.55	2,588,452,213.94	155,680,340.85	2,432,771,873.09	37,756,000	64.43	3.32
1870	3,708,641.00	430,508,064.42	2,480,672,427.81	149,502,471.60	2,331,169,956.21	38,558,371	60.46	3.08
1871	1,948,902.26	416,565,680.06	2,353,211,332.32	106,217,263.65	2,246,994,068.67	39,555,000	56.81	2.83
1872	7,926,797.26	430,530,431.52	2,253,251,328.78	103,470,798.43	2,149,780,530.35	40,595,000	52.96	2.56
1873	51,929,710.26	472,069,332.94	2,234,482,993.20	129,020,932.45	2,105,462,060.75	41,676,000	50.52	2.35
1874	3,216,590.26	509,543,128.17	2,251,690,468.43	147,541,314.74	2,104,149,153.69	42,795,000	49.17	2.31
1875	11,425,820,26	498,182,411.69	2,232,284,531.95	142,243,361.82	2,090,041,170.13	43,949,000	47.56	2.20
1876	3,902,420.26	465,807,196.89	2,180,395,067.15	119,469,726.70	2,060,925,340.45	45,135,000	45.66	2.11
1877	16,648,860.26	476,764,031.84	2,205,301,392.10	186,025,960.73	2,019,275,431.37	46,351,000	43.56	2.01
1878	5,594,560.26	455,875,682.27	2,256,205,892.53	256,823,612.08	1,999,382,280.45	47,595,000	42.01	1.99
1879	37,015,630.26	410,835,741.78	2,245,495,072.04	249,080,167.01	1,996,414,905.03	48,863,000	40.86	1.71
1880	7,621,455.26	388,800,815.37	2,120,415,370.63	201,088,622.88	1,919,326,747.75	50,155,783	38.27	1.59
1881	6,723,865.26	422,721,954.32	2,069,013,569.58	249,363,415.35	1,819,650,154.23	51,462,000	35.36	1.46
1882	16,260,805.26	438,241,788.77	1,918,312,994.03	243,289,519.78	1,675,023,474.25	52,799,000	31.72	1.09
1883	7,831,415.26	538,111,162.81	1,884,171,728.07	345,389,902.92	1,538,781,825.15	54,163,000	28.41	.96
1884	19,656,205.26	584,308,868.31	1,830,528,923.57	391,985,928.18	1,438,542,995.39	55,554,000	25.90	.87
1885	4,100,995.26	663,712,927.88	1,863,964,873.14	488,612,429.23	1,375,352,443.91	57,093,000	24.09	.84
1886	9,704,445.26	619,344,468.52	1,775,063,013.78	492,917,173.34	1,282,145,840.44	58,420,000	21.95	.79
1887	6,115,165.26	629,795,077.37	1,657,602,592.63	482,433,917.21	1,175,168,675.42	61,031,000	19.25	.71
1888	2,496,095,26	739,840,389.32	1,692,858,984.58	629,854,089.85	1,063,004,894.73	62,768,000	16.94	.65
1889	1,911,485.26	787,287,446.97	1,619,052,922.23	643,113,172.01	975,939,750.22	64,554,000	15.92	.53
1890	1,815,805.26	825,011,289.47	1,552,140,204.73	661,355,834.20	924,465,218.53	62,622,250	14.22	.47
1891	1,614,705.26	933,852,766.35	1,545,996,591.61	694,083,839.83	851,912,751.78	63,975,000	13.34	.37
1892	2,785,875.26	1,000,648,939.37	1,558,464,144.63	746,937,681.03	841,526,463.60	65,403,000	12.93	.35
1893	2,094,060.26	958,854,525.87	1,545,985,686.13	707,016,210.89	838,969,475.75	66,826,000	12.64	.35
1894	1,851,240 26	995,360,506.42	1,632,253,636.68	732,940,256.13	899,313,380.55	68,275,000	13.30	.38
1895	1,721,590.26	958,197,331.99	1,675,120,983.25	811,061,686.46	864,059,314.78	69,878,000	13.08	.42
1896	1,600,890.26	920,839,543.14	1,769,840,323.40	853,905,635.51	915,934,687.89	71,390,000	13.60	.49
1897	1,346,880.26	968,960,655.64	1,817,672,665.90	825,649,765.87	992,022,900.03	72,807,000	13.78	.48
1898	1,262,680.00	947,901,845.64	1,796,531,995.90	769,446,503.76	1,027,085,492.14	74,522,000	14.08	.47
1899	1,218,300.26	944,660,256.66	1,991,927,306.92	836,607,071.73	1,155,320,235.19	76,011,000	15.55	.54
1900	1,176,320.26	1,112,305,911.41	2,136,961,091.67	1,029,249,833.78	1,107,711,257.89	76,304,799	14.52	.44
1901	1,415,620.26	1,154,770,273.63	2,143,326,933.89	1,181,868,911.10	961,458,022.79	77,754,000	12.37	.43
1902	1,256,820.26	395,777,109.63	2,181,909,438.89	869,236,569.00	1,312,672,869.89	78,400,000	......	......
1903	**1,196,930.26**	**392,565,913.63**	**2,218,883,772.89**	**919,843,869.00**	**1,299,039,903.89**	....	......	......
1904	1,970,920	389,130,656	2,264,003,585	1,382,657,911	....	....	......	......

TOTAL RECEIPTS OF THE UNITED STATES AND THEIR SOURCES.

[*Prepared in Office of Secretary of the Treasury.*]

SOURCES.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Customs revenue	$177,452,964	$203,355,017	$131,818,530	$152,158,617	$160,021,752	$176,554,127	$149,575,062	$206,128,482	$233,164,871	$238,585,456
Internal revenue	153,971,073	161,027,624	147,111,233	143,421,672	146,762,865	146,688,574	170,900,641	273,437,162	295,327,927	307,180,664
Postal service	70,930,476	75,896,933	75,080,479	76,983,128	82,499,208	82,665,463	89,012,619	95,021,384	102,354,579	111,631,193
Miscellaneous	23,513,747	21,436,988	18,792,256	17,809,786	20,191,583	24,479,004	84,845,632	36,394,976	38,748,054	41,919,217
Total receipts	$425,868,260	$461,716,562	$372,802,498	$390,373,203	$409,475,408	$430,387,168	$494,333,954	$610,982,004	$669,595,431	$699,316,530

The total receipts of the United States Government for the fiscal year 1902 were $562,478,233; for 1903, $560,396.674; for 1904, $541,515,644.

RECEIPTS PER CAPITA.

	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Customs revenue	$2.73	$3.07	$1.95	$2.20	$2.28	$2.47	$2.05	$2.77	$3.06	$3.13
Internal revenue	2.36	2.43	2.17	2.08	2.09	2.05	2.34	3.68	3.87	4.03
Postal service	1.09	1.14	1.11	1.12	1.17	1.15	1.22	1.28	1.34	1.46
Miscellaneous	.36	.32	.28	.26	.29	.34	1.17	.49	.51	.55
Total	$6.54	$6.96	$5.51	$5.66	$5.83	$$6.01	$$6.78	$$8.22	$8.78	$$9.17

EXPENDITURES OF THE UNITED STATES AND THEIR OBJECTS.

[*Prepared in Office of Secretary of the Treasury.*]

OBJECTS.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Legislative	$7,683,514	$8,308,057	$8,921,301	$9,971,170	$9,460,958	$9,537,248	$9,438,577	$11,177,370	$9,972,217	$11,211,515
Executive Departments:										
Executive, proper	177,616	329,616	138,935	185,193	192,919	193,994	199,151	210,593	207,825	213,311
State	1,877,905	2,138,953	1,842,245	1,845,046	1,755,814	2,215,562	2,624,556	22,871,614	3,356,174	3,473.916
Treasury	85,674,980	87,948,441	87,399,321	76,149,899	77,108,089	81,675,362	88,110,938	92,822,116	99,996,479	100,216,686
War	49,310,405	52,024,489	56,841,759	53,898,370	52,947,075	50,814,622	93,889,779	232,395,365	137,650,329	147,493.921
Navy	29,554,679	30,522,939	32,090,658	29,208,069	27,554,733	34,972,479	59,250,482	64,354,735	56,378,312	60,985.304
Interior	155,801,840	182,454,411	160,381,821	160,002,743	160,194,984	162,884,966	167,118,389	161,167,118	161,218,094	168,959,479
Post-Office	77,547,934	84,321,489	85,825,419	90,544,322	94,218,225	96,286,737	101,244,938	104,762,717	111,115,755	118,180,981
Agriculture	2,943,863	3,141,881	2,704,118	2,604,551	2 ,905,669	3,025,480	3,193,308	3,493,375	3,625,851	3,963,897
Labor	168,259	179,689	167,834	168,758	163,945	170,699	179,772	170,902	173,010	169,921
Justice	356,986	913,743	283,399	323,275	303,243	317,675	371,146	386,133	436,733	435,608
Total	$403,414,467	$443,975,651	$427, 675, 509	$414.930.226	$417.344.696	$432,557,576	$516,182,459	$682,634,668	$574,158,562	$604,093,024
Judicial	$4.855.826	$7,091,180	$6.008,949	$8,277,029	$7,873.000	$6,344,797	$6,760,165	$6,281,526	$5,937,592	$6,294,007
Total disbursements	$415,953,807	$459.374.888	$442,605,759	$433,178,426	$434,678,654	$448,439,622	$532,381,201	$700,093,564	$590,068,371	$621,598,545

The total expenditures of the United States Government for the fiscal year 1902 were $471,190,858; for 1903, $506,099,007; for 1904, $582,402,321.

VALUE OF IMPORTS AND EXPORTS INTO AND FROM THE UNITED STATES, MERCHANDISE AND SPECIE COMBINED.

YEAR.	Imports.	Exports.	YEAR.	Imports.	Exports.	YEAR.	Imports.	Exports.
1790	$23,000,000	$20,205,156	1828	$88,509,824	$72,264,686	1866	$445,512,158	$434,903,593
1791	29,200,000	19,012,041	1829	74,492,527	72,358,671	1867	417,831,571	355,374,513
1792	31,500,000	20,753,098	1830	70,876,920	73,849,508	1868	371,624,808	375,737,001
1793	31,100,000	26,109,572	1831	103,191,124	81,310,583	1869	437,314,255	343,256,077
1794	34,600,000	33,043,725	1832	101,029,266	87,176,943	1870	462,377,587	450,927,434
1795	69,756,268	47,989.872	1833	108,118,311	90,140,433	1871	541,493,708	541,262,166
1796	81,436,164	58,574,625	1834	126,521,332	104,336,973	1872	640,338,766	524,055,120
1797	75,379,406	51,294,710	1835	149,895,742	121,693,577	1873	663,617,147	607,088,496
1798	68,551,700	61,327,411	1836	189,980,035	128,663,040	1874	595,861,248	652,913,445
1799	79,069,148	78,665,522	1837	140,989,217	117,419,376	1875	553,906,153	605,574,853
1800	91,252,768	70,671,780	1838	113,717,404	108,486,616	1876	476,677,871	596,890,973
1801	111,363,511	93,020,513	1839	162,092,132	121,028,416	1877	492,097,540	658,637,457
1802	76,333,333	71,957,144	1840	107,141,519	132,085,946	1878	466,872,846	728,605,891
1803	64,666,666	55,800,033	1841	127,946,177	121,851,803	1879	466,073,775	735,436,882
1804	85,000,000	77,699,074	1842	100,162,087	104,691,534	1880	760,989,056	852,781,577
1805	120,600,000	95,566,021	1843	64,753,799	84,346,480	1881	753,240,125	921,784,193
1806	129,410,000	101,536,963	1844	108,435,035	111,200,046	1882	767,111,964	799,959,736
1807	138,500,000	108,343,150	1845	117,254,564	114,646,606	1883	751,670,305	855,659,735
1808	56,990,000	22,430,960	1846	121,691,797	113,488,516	1884	705,123,955	807,646,992
1809	59,400,000	52,203,233	1847	146,545,638	158,648,622	1885	620,769,652	784,421,280
1810	85,400,000	66,757,970	1848	154,998,928	154,032,131	1886	674,029.792	751.988.240
1811	53,400,000	61,316.832	1849	147,857,439	145,755,820	1887	752.490.560	752.180.902
1812	77,030,000	38,527,236	1850	178,138,318	151,898,720	1888	783.295.100	742.368.690
1813	22,005,000	27,856,017	1851	216,224,932	218,388,011	1889	774,094,725	839,042,908
1814	12,965,000	6,927,441	1852	212,945.442	209,658,366	1890	823,286,735	909,977,104
1815	113,041,274	52,557,753	1853	267,978,647	230,976,157	1891	881,175,643	993,434,452
1816	147,103,000	81,920,052	1854	304,562,381	278,325,268	1892	897,057,002	1,113,284,034
1817	99,250,000	87,671,569	1855	261,468,520	275,156,846	1893	910,768,555	997,083,357
1818	121,750,000	93,281,133	1856	314,639,942	326,964,908	1894	740,730,293	1,019,569,898
1819	87,125,000	70,142,521	1857	360,890,141	362,960,682	1895	788,565,904	921,301,932
1820	74,454,000	69,691,669	1858	282,613,150	324,644,421	1896	842,026,925	1,055,558,555
1821	62,585,724	65,074.382	1859	338,768,130	356,789,462	1897	880,278,419	1,153,301,774
1822	83,241,541	72,160,281	1860	362,166,254	400,122,296	1898	767,369,109	1,301.993.960
1823	77,579,267	74,699,030	1861	335,650,153	249,344,913	1899	816,778,148	1,320,864,443
1824	80,548,142	75,986,657	1862	205,771,729	227,558,141	1900	929,770,670	1,499,462,116
1825	96,340,075	99,535,388	1863	252,919,920	268,121,058	1901	925,609,873	1,605,235,348
1826	84,974,477	77,595,322	1864	329,562,895	264,234,529	1902	983,574,456	1,480,020,741
1827	79,484,068	82,324,827	1865	248,555,652	233,672,529	1903	1,094,864,755	1,511,478,533
						1904	991,090,978	1,460,868,185

IMPORTS INTO THE UNITED STATES BY ARTICLES, 1903.

[*From National Bureau of Statistics.*]

ARTICLES.	Quantities.	Values.
Merchandise.		
Sugar . . . . lbs.	4,216,108,106	$72,088,973
Hides and skins, other than fur. lbs.	319,094,698	58,031,613
Chemicals, drugs, dyes, medicines.		64,351,199
Coffee . . . . lbs.	915,086,380	59,200,749
Silk, unmanufactured		50,011,050
Cotton, manufactures of		52,463,775
Fibres, vegetable, manufactures of.		39,334,521
India rubber and gutta-percha, crude . . . . lbs.	69,311,678	31,004,541
Silk, manufactures of		35,963,552
Fibres, vegetable, manufactures		34,462,513
Wood and manufactures of		28,746,271
Iron and steel, manufactures of		51,617,312
Wool, manufactured . . . . lbs.	177,137,796	22,152,961
Fruits, including nuts		23,726,636
Tin in bars, blocks or pigs . . . lbs.	88,018,036	23,618,802
Jewelry and precious stones		33,486,656
Wool, manufactures of		19.546.385
Tobacco . . . . lbs.	34,016,956	17,234.915
Tobacco, manufactures of		3,344,205
Leather and manufactures of		11,294,167
Copper and manufactures of (not ore)		17.505,247
Furs and manufactures of		15,301,912
Tea . . . . lbs.	108,574,905	15,659,229
Earthen, stone and china ware		10,512,052
Cotton, unmanufactured . . . . lbs.	74,874,426	10,892,591
Wines		10,249,296
Oils		12,283,957
Cocoa, crude, and shells of . . . lbs.	63,351,294	7,820.087
Glass and glassware		7,255,879
Coal, bituminous, ... tons	3,610,285	10,562,185
Animals		$4,533,845
Feathers, flowers, etc.		5,164,901
Paper and manufactures of		4,733,036
Spirits, distilled		4,834,580
Books, maps and engravings		4,323,938
Spices		4,815,125
Paper stock, crude		3,015,084
Cement . . . . lbs.	1,110,522,761	3,547,914
Lead . . . . lbs.	212,855,762	4,105,747
Toys		4,232,074
Vegetables		4,581,355
Hats, bonnets, and materials for		3,871,278
Hair, and manufactures of		2,775,084
Art works		4,310,315
Rice . . . . lbs.	169,656,284	3,061,473
Provisions (meat and dairy products)		4,703.536
Bristles . . . . lbs.	3,044,015	2,654,604
Cork wood, manufactures of		2,567,580
Clocks, watches, and parts of		2,672,310
Malt liquors . . . . gals.	4,258,818	2,087,741
Fertilizers		3,100,276
All other articles		96,305,230
Total merchandise		1,025,719,237
Specie: Gold		44,982,027
" Silver		24,163,491
Total imports		1,094,864,755

INTERNAL REVENUE COLLECTIONS BY STATES AND TERRITORIES,

[Prepared by the Commissioner of Internal Revenue.

STATES AND TERRITORIES.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Alabama	$106,771.14	$107,147.14	$112,768.14	$88,719.83	$136,317.30	$158,999.06	$201,260.77	$508,296.92	$539,015.22	$573,254.71
Arkansas	95,718.86	102,503.30	103,340.22	84,952.64	89,642.14	90,674.57	104,576.57	269,936.30	260,418.99	265,999.63
California and Nevada	2,280,933.30	2,194,048.21	1,907,928.55	2,090,720.25	2,554,131.26	3,049,259.55	2,415,571.32	4,348,693.48	4,517,498.34	4,580,478.65
Colorado and Wyoming	323,884.20	370,138.94	298,220.14	300,211.63	356,719.15	391,995.84	413,551.93	1,248,135.22	1,313,596.46	1,240,528.21
Connecticut and Rhode Island	930,783.02	1,025,458.19	1,044,999.17	1,066,176.44	1,089,924.22	1,066,470.96	1,187,195.64	2,916,759.03	3,040,783.28	3,099,988.95
Delaware, Maryland, District of Columbia, and two counties of Virginia	3,288,873.77	3,627,345.56	3,842,242.59	3,771,282.40	5,968,895.08	5,454,795.82	5,005,602.71	8,130,409.41	9,002,373.14	9,630,133.59
Florida	465,629.67	481,618.53	416,332.82	470,763.03	509,994.42	462,397.29	467,046.46	682,422.50	725,142.72	804,708.08
Georgia	482,811.52	449,677.39	413,442.43	393,417.72	478,070.59	447,698.85	453,751.04	941,726.30	917,892.03	924,379.17
Hawaii	....	....	....	....	....	....	....	....	7,454.30	102,182.63
Illinois	36,795,338.24	34,317,541.64	30,942,233.86	30,604,069.60	31,973,133.52	32,115,607.07	39,658,686.09	47,359,523.87	52,237,729.32	55,407,024.88
Indiana	6,473,438.89	6,459,722.23	4,920,667.23	6,804,164.98	7,693,154.44	8,564,363.13	10,022,274.35	17,213,070.97	23,229,623.81	23,466,882.37
Iowa	478,008.40	551,361.05	488,288.13	465,105.87	439,864.06	452,241.65	479,366.88	2,003,256.26	1,874,803.87	1,809,373.87
Kansas	290,501.40	361,761.12	362,739.97	277,633.81	248,729.01	250,398.32	432,480.19	944,825.37	1,010,718,79	1,009,939.70
Kentucky	21,813,851.61	26,618,820.36	24,308,630.94	19,947,823.67	14,903,110.99	15,658,057.67	18,226,518.98	22,215,234.23	24,472,382.93	25,181,305.86
Louisiana and Mississippi	734,832.29	758,158.78	828,647.66	1,173,368.80	1,465,548.80	1,299,526.39	1,498,304.11	2,254,173.74	2,443,558.37	2,399,981.28
Maine, New Hampshire and Vermont	546,770.58	532,912.58	494.012.32	500,906.92	498,924.13	403,719.62	455,098.43	1,341,036.09	1,309,361.06	1,201,556.43
Massachusetts	2,462,209.61	2,563,928.48	2,453,203.36	2,687,178.35	4,367,266.24	4,018,399.74	3,027,489.78	8,153,620.36	7,953,569.58	7,541,852.41
Michigan	2,283,909.44	2,346,427.77	2,127,647.28	2.173,888.01	2,150,144.38	2,241,503.18	2,561,261.69	4,643,795.49	4,925,024.48	4,300,259.94
Minnesota	2,272,427.38	2,610,225.83	2,178,592.49	2,169,344.78	2,187,876.80	2,224,315.85	1,209,187.94	2,567,688.23	2,814,113.23	2,667,966.12
Missouri	8,521,216.60	8,975,110.66	7,636,660.61	7,830,900.70	6,959,915.32	7,364,682,86	9,040,790.31	16,369,075.34	16,694,171.67	17,565,648.93
Montana, Idaho, and Utah	195,751.86	196,249.86	150,257.41	175,432.53	194,447.94	226,221.25	257,081.18	681,097.21	718,365.33	755,673.70
Nebraska, North and South Dakota	4,898,588.64	3,817,479.94	2,240,292.03	1,146,947.88	627,092.71	1,313,881.81	2,492,190.10	3,428,079.38	3,383,918.23	3,407,808.90
New Jersey	4,385,011.87	4,457,608.90	4,230,610.86	4,088,666.53	4,111,712.89	4,111,098.27	4,719,981.98	8,074,261.18	8,828,895.04	9,721,622.55
New Mexico and Arizona	39,778.14	48,886.68	36,720.56	41,308.22	36,404.43	38,019.20	51,733.83	132,867.28	131,256.67	120,308.27
New York	17,670,978.82	19,696,554.78	18,922,111.64	19,090,722.70	21,620,470.64	18,420,766.74	21,058,569.65	46,634,980.98	46,475,135.22	49,789,698.29
North Carolina	2,333,656.85	2,425,783.28	2,369,781.63	2,632,779.96	2,739,552.75	2,760,821.08	3,250,213.06	4,921,016.91	6,331,933.36	7,124,749.36
Ohio	12,921,175.43	13,415,456.55	12,454,898.37	12,477,148.01	11,947,724.18	12,748,788.11	16,436,908.02	21,341,065.75	21,345,489.63	22,429,914.36
Oregon, Washington, and Alaska	379,876.04	362,802.43	340,531.04	331,890.52	325,368.77	275,577.44	360,905.01	1,074,921.81	1,248,743.91	1,223,013.18
Pennsylvania	11,159,407.21	12,470,224.11	12,151,196.35	10,981,086.12	11,145,548.70	11,446,317.49	13,846,790.70	23,335,573.53	25,923,506.35	26,062,959.75
South Carolina	71,812.85	56,821.49	73,834.90	87,419.32	108,204.16	93,350.47	131,293.67	284,278.15	312,911.22	310,590.57
Tennessee	1,278,862.03	1,311,893.94	1,010,291.70	897,302.88	955,500.44	1,068,621.27	1,286,885.55	2,173,895.50	2,295,606.01	2,406,180.54
Texas	306,375,93	295,396.66	377,100.49	392,129.07	422,033.94	441,848.38	523,799.62	1,577,833.59	1,541,474.47	1,681,424.60
Virginia	2,915,412.52	2,912,548.28	2,548,051.75	2,607,181.90	2,872,122.23	2,653,746.53	3,403,768.64	4,815,851.08	5,433,820.05	5,623,008.53
West Virginia	807,588.36	854,634.66	864,380.96	688,991.06	640,992.15	706,874.77	816,305.54	1,430,106,57	1,552,826.40	1,631,576.81
Wisconsin	3,794,699.38	4,228,740.35	4,517,792.12	4,706,441.62	5,012,077.82	4,598,553.24	5,370,377.62	9,467,065.41	10,502,994.09	10,809,694.60
Aggregate receipts by States and Territories	153,856,885.85	161,004,989.67	147,168,449.70	143,246,077.75	146,830,615.66	146,619,593.47	170,866,819.36	273,484,573.44	295,316,107.57	306,871,669.42

The aggregate of internal revenue receipts by States and Territories for 1902 was $271,867,990.25; for 1903, $230,740,383; for 1904, $232,873,721.

INTERNAL AND CUSTOMS REVENUE AND EXPENSES OF COLLECTING, 1861-1903.

[*Prepared in the Office of the Secretary of the Treasury.*]

YEAR ENDING JUNE 30.	INTERNAL REVENUE.			CUSTOMS REVENUE.		
	Revenue.	Expenses of Collecting.		Revenue.	Expenses of Collecting.	
			Per Ct.			*Per Ct.*
1861				$39,582,125.64	$2,843,455.84	7.18
1862				49.056,397.62	3.276,560.39	6.67
1863	$37,640,787.95	$108,685.00	.29	69,059,642.40	3,181,026.17	4.60
1864	109,741,134.10	253,372.99	.23	102,316,152.99	4,192,582.43	4.09
1865	209,461,215.25	385,239.52	.18	84,928,260.00	5,415,449.32	6.39
1866	309,226,813.42	5,783,128.77	1.87	179,046,651.58	5,342,469.99	2.98
1867	266,027,537.43	7,335,029.81	2.77	176,417,810.88	5,763,979.01	3.26
1868	191,087,589.41	8,705,366.36	4.55	164.464,599.56	7,641,116.68	4.65
1869	158,356,460.86	7,257,176.11	4.59	180,048,426.63	5,388,082.31	2.99
1870	184,899,756.49	7,253,439.81	3.92	194,538,374.44	6,233,747.68	3.20
1871	143,098,153.63	7,593,714.17	5.30	206,270,408.05	6,568,350.61	3.18
1872	130,642,177.72	5,694,116.86	4.36	216,370,286.77	6,950,173.88	3.21
1873	113,729,314.14	5,340,230.00	4.69	188,089,522.70	7,077,864.70	3.76
1874	102,409,784.90	4,509,976.05	4.40	163,103,833.69	7,321,469.94	4.49
1875	110,007,493.58	4,289,442.71	3.89	157,167,722.35	7,028,521.80	4.47
1876	116,700,732.03	3,942,613.72	3.38	148,071,984.61	6,704,858.09	4.53
1877	118,630,407.83	3,556,943.85	2.99	130,956,493.07	6,501,037.57	4.96
1878	110,581,624.74	3,280,162.22	2.96	130,170,680.20	5,826,974.32	4.47
1879	113,561,610.58	3,527,956.56	3.10	137,250,047.70	5,477,421.52	3.96
1880	124,009,373.92	3,657,105.10	2.95	186,522,064.60	6,023,253.53	3 23
1881	135,264,385.51	4,327,793.24	3.20	198,159,676.02	6,383,288.10	3.22
1882	146,497,595.45	4,097,241.34	2.80	220,410,730.25	6,506,359.26	2.95
1883	144,720,368.98	4,424,707.39	3.06	214,706,496.93	6,593,509.43	3.07
1884	121,586,072.51	4,216,847.26	3.47	195,067,489.76	6,709,485.76	3.44
1885	112,498,725.54	3,853,035.94	3.42	181,471,939.34	6,494,847.29	3.58
1886	116,805,936.48	3,578,679.42	3.06	192,905,023.44	6,427,612.67	3.33
1887	118,823,391.22	3,826,507.98	3.22	217,286,893.13	6,855,801.74	3.16
1888	124,296,871.98	3,626,038.91	2.92	219,091,173.63	7,156,187.77	3.27
1889	130,881,513.92	3,770,388.72	2.88	223,832,741.69	7,030,487.00	3.14
1890	142,606,705.81	3,780,950.41	2.65	229,668,584.57	6,859,986.09	2.98
1891	145,686,249.44	4,003,485.65	2.75	219,522,205.23	6,964,367.09	3.17
1892	153,971,072.57	3,879,082.31	2.52	177,452,964.15	6,646,276.05	3.74
1893	161,027,623.93	4,144,927.02	2.57	203,355,016.73	6,756,790.98	3.32
1894	147,111,232.81	3,749,029.22	2.55	131,818,530.62	6,791,872.86	5.15
1895	143,421,672.02	3,754,935.45	2.62	152,158,617.45	6,736,690.92	4.43
1896	146,762,864.74	3,846,887.55	2.62	160,021,751.67	7,237,796.40	4.52
1897	146,688,574.29	3,606,798.85	2.46	176,554,126.65	7,075,372.05	4.01
1898	170,900,641.49	3,705,256.95	2.17	149,575,062.35	7,152,276.58	4.78
1899	273,437,161.51	4,350,543.05	1.59	206,128,481.75	7,361,562.83	3.57
1900	295,327,926.76	4,446,318.98	1.51	233,164,871.16	7,467,692.48	3.20
1901	307,180,663.77	4,404,986.68	1.43	238,585,455.99	7,713,418.82	3.23
1902	271,880,122.00			254,444,709.00		
1903	230,740,382.00			284,479,582.00		
1904	232,873,721			262,013,079		

NATIONAL BANKS OF THE UNITED STATES—NUMBER, LOANS, CAPITAL, SURPLUS, DEPOSITS, 1880-1903.

[*From Reports of Comptroller of Currency.*]

DATE.	No. of Banks.	Loans.	Capital.	Surplus.	Net Deposits.	Specie.
October 1, 1880	2,090	$1,041,000,000	$457,600,000	$120,500,000	$967,200,000	$109,300,000
October 1, 1881	2,132	1,173,800,000	463,800,000	128,100,000	1,111,600,000	112,700,000
October 3, 1882	2,269	1,243,200,000	483,100,000	132,100,000	1,118,600,000	102,900,000
October 2, 1883	2,501	1,303,500,000	509,700,000	142,000,000	1,168,200,000	107,800,000
September 30, 1884	2,664	1,245,300,000	524,300,000	147,100,000	1,098,700,000	128,600,000
October 1, 1885	2,714	1,301,200,000	527,500,000	146,600,000	1,248,200,000	174,900,000
October 7, 1886	2,852	1,443,700,000	548,200,000	157,200,000	1,301,800,000	156,400,000
October 5, 1887	3,049	1,580,000,000	578,500,000	173,900,000	1,388,400,000	165,100,000
October 4, 1888	3,140	1,674,900,000	592,600,000	185,500,000	1,543,600,000	178,100,000
September 30, 1889	3,290	1,805,700,000	612,600,000	197,400,000	1,655,400,000	164,300,000
October 2, 1890	3,540	1,970,000,000	650,500,000	213,600,000	1,758,700,000	195,900,000
September 25, 1891	3,677	1,989,200,000	677,400,000	227,600,000	1,758,600,000	183,500,000
September 30, 1892	3,773	2,153,500,000	686,600,000	238,900,000	2,022,500,000	209,100,000
October 3 1893	3,781	1,830,600,000	678,500,000	246,800,000	1,573,700,000	224,700,000
October 2, 1894	3,755	2,007,000,000	668,900,000	245,200,000	2,019,300,000	237,300,000
September 28, 1895	3,712	2,041,800,000	657,100,000	246,400,000	1,989,300,000	196,200,000
October 6, 1896	3,676	1,893,300,000	648,500,000	247,700,000	1,798,800,000	200,800,000
October 5, 1897	3,610	2,066,800,000	631,500,000	246,300,000	2,195,700,000	239,400,000
September 20, 1898	3,585	2,156,000,000	621,500,000	247,600,000	2,749,700,000	293,900,000
September 7, 1899	3,595	2,496,700,000	605,700,000	248,400,000	3,131,400,000	338,500,000
September 5, 1900	3,871	2,686,700,000	630,300,000	261,900,000	3,281,000,000	373,300,000
September 30, 1901	4,221	3,018,600,000	655,300,000	279,500,000	3,661,600,000	376,700,000
July 1, 1902	4,546	3,172,757,485	671,176,312	302,513,154		398.770,561
September 1, 1903	4,700		722,797,806	353,105,525		
August 1, 1904	5,399	3,595,013,467	775,679,335	581,638,528	3,312,439,841	

MONEY IN CIRCULATION IN THE UNITED STATES,

[*From Reports of Secretary of Treasury.*]

YEAR.	Gold Coin.	Gold Certificates.	Silver Dollars.	Silver Certificates.	Minor Silver Coin.	United States Notes.	National Bank Notes.	Fractional Currency.	Total Circulation.	Per Capita Circulation.
1878	$25,000,000	....	$1,209,251	$7,080	$56,918,322	$274,660,895	$311,724,361	$16,367,725	$729,132,634	$15.32
1879	110,505,362	$15,279,820	8,036,439	414,480	61,346,584	272,289,112	321,404,996	....	818,631,793	16.75
1880	225,695,779	7,963,900	20,110,557	5,789,569	48,511,788	313,660,457	337,415,178	....	973,382,228	19.41
1881	315,312,877	5,759,520	20,342,412	39,110,729	46,839,364	316,476,924	349,746,293	....	1,114,238,119	21.71
1882	358,251,325	5,029,020	32,403,820	54,506,090	46,379,949	312,010,427	352,464,788	....	1,174,290,419	22.37
1883	344,653,495	59,807,370	35,651,450	72,620,686	46,474,299	310,182,177	347,856,219	....	1,230,305,696	22.91
1884	340,624,203	71,146,640	40,690,200	96,427,011	45,660,808	306,497,214	330,689,893	....	1,243,925,969	22.65
1885	341,668,411	126,729,730	39,086,969	101,530,946	43,702,921	301,633,637	308,631,001	....	1,292,568,615	23.02
1886	358,219,575	76,044,375	52,668,623	88,116,225	46,173,990	305,562,699	307,665,038	....	1,252,700,525	21.82
1887	376,540,681	91,225,437	55,548,721	142,118,017	48,583,865	317,897,219	276,855,203	....	1,317,539,143	22.45
1888	391,114,033	121,094,650	55,527,396	200,759,657	50,362,314	293,335,040	245,312,780	....	1,372,170,876	22.88
1889	376,481,568	117,130,229	54,457,299	257,155,565	51,477,164	299,484,191	207,224,633	....	1,380,361,649	22.52
1890	374,253,923	130,830,859	56,278,749	297,556,238	54,032,587	322,798,977	181,604,937	....	1,429,251,270	22.82
1891	407,319,163	120,063,069	58,876,179	307,235,966	58,219,220	321,332,360	162,221,046	40,348,704	1,497,440,707	23.42
1892	408,568,824	141,093,619	56,817,462	326,693,465	63,293,704	309,559,904	167,221,517	98,258,692	1,601,347,187	24.56
1893	408,535,663	92,642,189	56,929,673	326,823,848	65,469,866	319,059,426	174,669,966	140,855,614	1,596,701,245	24.03
1894	495,976,730	66,339,849	52,564,662	326,990,736	58,510,957	266,589,602	200,219,743	134,681,429	1,660,808,708	24.52
1895	479,637,961	48,381,309	51,986,043	319,622,941	60,350,014	263,648,985	206,953,051	115,743,169	1,691,968,473	23.20
1896	454,905,064	42,198,119	52,116,904	330,657,191	60.204,451	224,249,868	215,168,122	95,045,247	1,506,434,966	21.41
1897	517,589,688	37,285,339	51,940,281	357,849,312	59,616,409	245,954,622	225,544,351	83,409,517	1,640,209,519	22.87
1898	657,950,463	35,811,589	58,482,966	390,126,510	64,056,920	284,569,022	222,990,988	98,306,437	1,837,859,895	25.15
1899	679,738,050	32,655,919	61,481,426	402,136,617	69,065,824	308,351,842	237,805,439	92,561,764	1,904,071,881	25.58
1900	610,806,472	200,733,019	65,589,346	408,465,574	76,160,988	313,971,545	300,115,112	75,303,942	2,055,150,998	26.94
1901	629,782,765	247,036,359	66,921,062	429,643,556	79,235,214	330,045,406	345,190,116	47,524,538	2,175,387,277	27.98
1902	624,728,060	304,382,054	75,043,719	459,571,478	89,906,205	342,930,086	352,383,259	....	2,275,686,651	28.43
1903	620,879,790	386,369,399	72,568,354	454,893,932	92,246,380	335,195,565	401,397,500	....	2,695,440,174	29.60

VALUE OF EXPORTS GROUPED ACCORDING TO SOURCES OF PRODUCTION.

[*From National Bureau of Statistics.*]

YEAR.	EXPORTS OF DOMESTIC MERCHANDISE OTHER THAN MANUFACTURES.												Exports of Domestic Manufactures.		Total Exports of Domestic Merchandise.
	Agriculture.		Mining.		Forest.		Fisheries.		Miscellaneous.		Total.				
	Values.	Per Cent.	Values.	Per Cent.	Values.	Per Cent.	Values.	Per Cent.	Values.	Per Cent.	Values.	Per Cent.	Values.	Per Cent.	Values.
1860	$256,560,972	81.13	$999,465	0.31	$10,299,959	3.26	$4,156,480	1.31	$3,879,655	1.23	$275,896,531	87.24	$40,345,892	12.76	$316,242,423
1870	361,188,483	79.35	5,026,111	1.10	14,897,963	3.27	2,835,508	.62	2,980,512	.66	386,928,577	85	68,279,764	15	455,208,341
1880	685,961,091	83.25	5,863,232	.71	17,321,268	2.11	5,255,402	.64	6,689,345	.81	721,090,338	87.52	102,856,015	12.48	823,946,353
1881	730,394,943	82.63	7,401,282	.84	19,486,051	2.20	5,556,439	.63	6,854,013	.78	769,692,728	87.08	114,233,219	12.92	883,925,947
1882	552,219,819	75.31	8,175,692	1.11	25,580,264	3.50	6,197,752	.85	6,271,859	.85	598,445,386	81.62	134,794,346	18.38	733,239,732
1883	619,269,449	77	10,446,719	1.30	28,636,199	3.56	6,276,375	.78	5,366,807	.67	669,995,549	83.31	134,228,083	16.69	804,223,632
1884	536,315,318	73.98	15,022,255	2.07	26,222,959	3.62	5,614,111	.77	5,417,322	.75	588,591,965	81.19	136,372,887	18.81	724,964,852
1885	530,172,966	72.96	15,797,885	2.18	22,014,839	3.03	5,955,122	.82	5,554,607	.76	579,495,419	79.75	147,187,527	20.25	726,682,946
1886	484,954,595	72.82	13,654,286	2.05	20,961,708	3.15	5,138,806	.77	4,713,156	.71	529,422,551	79.50	136,541,978	20.50	665,964,529
1887	523,073,798	74.41	11,758,662	1.67	21,126,273	3.01	5,155,775	.73	5,173,310	.73	566,287,818	80.55	136,735,105	19.45	703,022,923
1888	500,840,086	73.23	17,993,895	2.63	23,991,092	3.51	5,518,552	.82	5,218,392	.76	553,562,017	80.95	130,300,087	19.05	683,862,104
1889	532,141,490	72.87	19,947,518	2.73	26,997,127	3.70	7,106,388	.97	5,414,579	.74	591,607,102	81.01	138,675,507	18.99	730,282,609
1890	629,820,808	74.51	22,297,755	2.64	29,473,084	3.49	7,458,385	.88	5,141,420	.61	694,191,452	82.13	151,102,376	17.87	845,293,828
1891	642,751,344	73.69	22,054,970	2.53	28,715,713	3.29	6,208,577	.71	3,612,364	.41	703,342,968	80.63	168,927,315	19.37	872,270,283
1892	798,328,232	78.60	20,692,885	2.04	27,957,423	2.75	5,403,587	.53	3,838,947	.38	857,221,074	84.30	158,510,937	15.70	1,015,732,011
1893	615,382,986	74.05	20,020,026	2.41	28,127,113	3.38	5,541,378	.67	3,936,164	.47	673,007,667	80.98	158,023,118	19.02	831,030,785
1894	628,363,038	72.28	20,449,598	2.35	28,000,629	3.22	4,261,920	.49	4,400,944	.52	685,476,129	78.86	183,728,808	21.14	869,204,937
1895	553,210,026	69.73	18,509,814	2.33	28,576,235	3.61	5,328,807	3.67	4,171,974	.52	609,796,856	76.86	183,595,743	23.14	793,392,599
1896	569,879,297	66.02	20,045,654	2.32	33,718,204	3.91	6,850,392	.79	4,135,762	.48	634,629,309	73.52	228,571,178	26.48	863,200,487
1897	683,471,139	66.23	20,804,573	2.01	40,489,321	3.92	6,477,951	.63	3,479,228	.34	754,722,212	73.13	277,285,391	26.87	1,032,007,603
1898	853,683,570	70.54	19,410,707	1.60	37,900,171	3.13	5,435,483	.45	3,164,628	.26	919,594,559	75.98	290,697,354	24.02	1,210,291,913
1899	784,776,142	65.19	28,156,174	2.34	42,126,889	3.49	5,992,999	.50	3,286,872	.27	864,339,076	71.79	339,592,146	28.21	1,203,931,222
1900	835,858,123	60.98	37,843,742	2.76	52,218,112	3.81	6,326,620	.46	4,665,218	.34	936,911,815	68.35	433,851,756	31.65	1,370,763,571
1901	943,811,020	64.62	37,985,333	2.60	54,317,294	3.72	7,683,353	.53	4,510,740	.31	1,048,307,740	71.78	412,155,066	28.22	1,460,462,806
1902	851,460,312	62.81	39,075,999	2.88	....	.....	....	.....	....	.....	951,591,098	......	403,890,763	29.86	1,355,481,861
1903	873,285,142	62.72	38,844,759	2.79	....	.....	....	.....	....	.....	984,044,430	......	408,187,207	29.32	1,392,231,637

QUANTITY AND VALUE OF EXPORTS BY ARTICLES.

[*Bureau of Statistics—Treasury Department.*]

ARTICLES EXPORTED.	1900.		1901.	
	Quantities.	Values.	Quantities.	Values.
Agricultural Implements—Mowers and reapers		$11,243,763		$9,943,680
Plows and cultivators		2,178,098		1,888,373
All others		2,677,288		4,481,381
Total		$16,099,149		$16,313,434
Animals—Cattle (number)	397,286	$30,635,153	459,218	$37,566,980
Hogs (number)	51,180	394,813	22,318	238,465
Horses (number)	64,722	7,612,616	82,250	8,873,845
Mules (number)	43,369	3,919,478	34,405	3,210,267
Sheep (number)	125,772	733,477	297,925	1,933,000
All other		289,494		236,319
Total		$43,585,031		$52,058,876
Books, maps and other printed matter		$2,943,435		$3,471,245
Brass and manufactures of		1,866,727		2,007,450
Breadstuffs—Barley (bushels)	23,661,662	11,216,694	6,293,207	2,883,565
Bread, etc. (pounds)	18,329,815	938,513	12,420,325	606,811
Buckwheat (bushels)	426,822	254,847	123,540	79,120
Corn (bushels)	209,348,284	85,206,400	177,817,965	82,527,983
Oats (bushels)	41,369,415	12,504,654	37,046,812	11,765,330
Rye (bushels)	2,355,792	1,442,055	2,326,882	1,321,979
Wheat (bushels)	101,950,389	73,237,080	132,060,667	96.771.743
Wheat flour (barrels)	18,699,194	67,760,886	18,650,979	69.459.296
All other		10,182,949		10.178.791
Total		$262,744,078		$275,594,618
Carriages, cycles, cars		$9,905,610		$10,920,856
Chemicals, drugs, dyes, medicines		13,203,610		14,384,448
Clocks and watches		1,977,694		2,340,751
Coal (tons)	7,188,648	19,502,813	7,676,149	22,317,496
Coke (tons)	363,202	1,233,921	365,888	1,433,497
Copper—Ore (tons)	7,825	1,009,288	10,106	1,346,707
Manufactures of		57,852,960		43,267,021
Cotton—Unmanufactured (pounds)	3,126,225,588	242,988,978	3,359,062,360	315,105,047
Manufactures of		24,003,087		20,272,418
Eggs (dozens)	5,920,727	984,081	3,692,875	676.232
Fertilizers (tons)	815,216	7,218,224	643,726	5,425,960
Fibers—Bags, twine, cordage, etc		4,441,835		4,302,776
Fish		5,427,469		6,789.482
Fruits and nuts		11,642,662		10,826,222
Furs and fur skins		4,503,968		4,404,448
Glass and glassware		1,899,901		2,071,023
Glucose or grape sugar (pounds)	221,901,459	3,600,139	214,209,974	3,113,898
Glue (pounds)	2,349,014	225,844	2,703,400	254,447
Grease and soap stock		2,944,322		3,339,948
Gunpowder and other explosives		1,891,604		1,712,102
Hay (tons)	42,716	992,741	89,364	1,476,870
Hides and skins (pounds)	7,486,256	804,674	11,161,749	1,064,952
Hops (pounds)	12,639,474	1,707,660	14,963,676	2,466,515
India rubber, manufactures of, etc		2,860,072		3,429,981
Instruments—Scientific, telephone, telegraph, etc		6,435,766		7,361,231
Iron and steel and manufactures of		121,992,590		117,495,087
Jewelry and manufactures of gold and silver		1,143,638		1,229,672
Lamps, etc		978,874		1,021,435
Leather and manufactures of		27,293,010		27,923,653
Malt liquors		2,139,216		1,723,040
Marble and stone and manufactures of		1,677,169		1,638,314
Musical instruments		1,958,779		2,780,796
Naval Stores—Resin, tar, etc. (barrels)	2,425,899	3,919,272	2,871,341	4,865,921
Turpentine, spirits of (gallons)	18,090,582	8,554,922	20,240,851	7,715,029
Total		$12,474,194		$12,580,950
Oil cake and oil cake meal (pounds)	1,626,824,524	$16,757,519	1,713,842,177	$18,591,898
Oils—Animal (gallons)	1,975,741	718,997	2,399,469	1,018,431
Mineral, crude (gallons)	133,023,656	7,364,162	138,448,430	6,686,929
Mineral, refined (gallons)	817,599,499	67,740,735	870,498,964	63,049,812
Mineral, residuum (barrels)	395,933	506,853	622,538	1,376,047
Vegetable		16,345,056		19,035,681
Paints, pigments and colors		1,902,367		2,036,343
Paper and manufactures of		6,215,833		7,439,001
Paraffin and paraffin wax (pounds)	182,153,718	8,602,723	129,184,962	6,857,288

VALUE OF EXPORTS FROM THE UNITED STATES

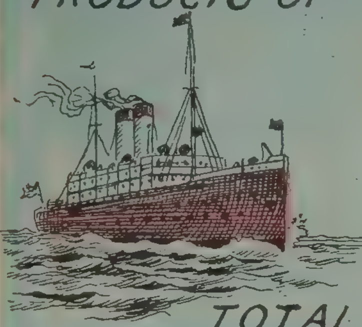
1866	$434.903,593	1884	$807.646.992
1867	$355,374.513	1885	$784,421.280
1868	$375,737.801	1886	$751,988.240
1869	$343.256,077	1887	$752,180.902
1870	$450,927.434	1888	$742.368,690
1871	$541,262,166	1889	$839,042,908
1872	$524,055.120	1890	$909,977.104
1873	$607,088,496	1891	$993,434.452
1874	$652,913,445	1892	$1,113,284.034
1875	$605.574.853	1893	$997,083,357
1876	$596,890.973	1894	$1,019,569,898
1877	$658.637.457	1895	$921,301,932
1878	$728,605,891	1896	$1,055,558,555
1879	$735,436,882	1897	$1,153,301,774
1880	$852.781,577	1898	$1,301,993.960
1881	$921,784.193	1899	$1,320,864,443
1882	$799.959.736	1900	$1,499,462.116
1883	$855.659.735	1901	$1.605.235,348
		1904	$1.591,789,959

VALUE OF IMPORTS INTO THE UNITED STATES

1866	$445,512.158	1884	$705.123,955
1867	$417.831,571	1885	$620,769.652
1868	$371,624.808	1886	$674,029,792
1869	$437.314,255	1887	$752,490,560
1870	$462.377.587	1888	$783.295,100
1871	$541,493.708	1889	$774.094,725
1872	$640,338,766	1890	$823,286,735
1873	$663,617.147	1891	$881,175,643
1874	$595,861,248	1892	$897,057.002
1875	$553,906,153	1893	$910,768.555
1876	$476,677.871	1894	$740.730,293
1877	$492,097.540	1895	$788.565,904
1878	$466,872,846	1896	$842,026,925
1879	$466,073.775	1897	$880,278,419
1880	$760.989,056	1898	$767.369,109
1881	$753,240,125	1899	$816.778.148
1882	$767.111,964	1900	$929.770,670
1883	$751.670.305	1901	$925,609.873
		1904	$1,117 911,543

EXPORTS FROM U.S. BY GRAND GROUPS

BUREAU OF STATISTICS



DOMESTIC EXPORTS	1902 DOLLARS	1903 DOLLARS
PRODUCTS OF - AGRICULTURE	851.465.622	873.285.142
MANUFACTURES	403.641.401	408.187.207
MINING	39.216.112	38.844.759
FOREST	48.188.661	57.830.778
FISHERIES	7.705.065	7.755.232
MISCELLANEOUS	5.265.000	6.328.519
TOTAL DOMESTIC	1.355.481.861	1.392.231.637
FOREIGN EXPORTS		
FREE OF DUTY	13.962.234	14.920.301
DUTIABLE	12.275.306	12.986.076
TOTAL FOREIGN	26.237.540	27.906.377
TOTAL EXPORTS	1.381.719.401	1.420.138.014

IMPORTS INTO U.S. DUTIABLE AND FREE

BUREAU OF STATISTICS

FREE OF DUTY	1902 DOLLARS	1903 DOLLARS
ARTICLES OF FOOD AND ANIMALS	94.117.169	89.779.088
ARTICLES IN RAW OR CRUDE CONDITION	247.721.434	267.398.914
ARTICLES WHOLLY OR PARTLY MANUFACTURED FOR USE IN HOME MANUFACTURES	33.782.932	40.905.326
ARTICLES MANUFACTURED AND READY FOR CONSUMPTION	12.975.482	14,372.996
ARTICLES OF LUXURY ETC.	8,221.854	13.725.642
TOTAL FREE OF DUTY	396.818.871	426.181.966
DUTIABLE ARTICLES		
ARTICLES OF FOOD AND ANIMALS	106.793.656	128.540.677
ARTICLES IN RAW OR CRUDE CONDITION	79,934.983	107,752.033
ARTICLES WHOLLY OR PARTLY MANUFACTURED FOR USE IN HOME MANUFACTURES	57.335.062	73.514.394
ARTICLES MANUFACTURED & READY FOR CONSUMPTION	137.545.652	156.016.109
ARTICLES OF LUXURY ETC.	124.712.744	133.845.359
TOTAL DUTIABLE	506.502.077	599.569.572
TOTAL IMPORTS	903.320.948	1.025.751.538
PERCENT OF FREE GOODS	43.93	41.55
DUTIES COLLECTED FROM CUSTOMS	254.456.927	283,891.719

QUANTITY AND VALUE OF EXPORTS BY ARTICLES—(Continued).

ARTICLES EXPORTED.	1900.		1901.	
	Quantities.	Values.	Quantities.	Values.
Provisions—Beef, canned (pounds)	55,553,745	$5,233,982	53,445,521	$5,307,501
Beef, fresh (pounds)	329,078,609	29,463,830	351,748,333	31,851,361
Beef, salted, cured (pounds)	49,625,678	2,894,391	56,101,917	3,217,896
Tallow (pounds)	89,030,943	4,398,204	77,166,889	3,848,561
Bacon (pounds)	512,153,729	38,975,919	456,122,741	37,499,026
Hams (pounds)	196,414,412	20,416,367	216,571,803	22,842,778
Pork, canned (pounds)	8,496,074	658,402	8,945,594	708,381
Pork, fresh and salt (pounds)	159,146,588	10,169,569	169,372,197	12,351,170
Lard (pounds)	661,813,663	41,939,164	611,357,514	46,560,148
Lard compounds (pounds)	25,852,685	1,475,064	23,359,966	1,449,878
Mutton (pounds)	773,760	64,313	691,121	46,643
Oleo and oleomargarine (pounds)	150,995,748	10,920,400	166,642,112	12,330,874
Poultry and game		463,905		1,070,190
Sausage (pounds)			9,799,106	923,974
Sausage casings		2,307,571		2,778,854
Canned meats		1,724,064		1,556,671
All other		3,941,394		3,211,250
Butter (pounds)	18,266,371	3,143,509	23,243,526	4,014,905
Cheese (pounds)	48,419,353	4,943,609	39,813,517	3,950,999
Milk		1,139,402		1,437,818
Total provisions, etc.		$184,453,055		$196,958,878
Seeds		$7,036,982		$6,384,815
Soap		1,774,024		1,569,180
Spirits, distilled (proof gallons)	2,442,989	2,278,111	2,958,333	3,054,708
Starch (pounds)	124,935,963	2,604,362	102,800,455	2,005,865
Sugar and molasses		3,132,184		2,969,596
Tobacco—Unmanufactured (pounds)	344,655,697	29,422,371	315,787,782	27,656,475
Manufactured		6,010,141		5,092,603
Vegetables		2,853,278		2,598,402
Wood and manufactures of		50,598,416		52,442,684
Wool and manufactures of		1,300,362		1,542,682
Zinc—Ore (tons)	32,101	980,999	37,940	1,150,695
Manufactures		1,669,215		965,510
All other manufactures		21,638.799		21,575,505
Total value of exports of domestic merchandise		$1,370,763.571		$1,460.453.809
Total value of exports of foreign merchandise		23.719 511		27,301,748
Total value of all exports, except gold and silver		$1,394,483,082		$1,487,755,557
Specie Export, 1901—Gold Domestic				52,635,309
Specie Export, 1901—Gold Foreign				549,868
Specie Export, 1901—Silver Domestic				58,778,779
Specie Export, 1901—Silver Foreign				5.506,401
Total exports, domestic and foreign				$1,605,235,348

Total exports (1902), $1,480,020,741; in 1903, $1,511,478,533.

SAVINGS BANKS OF THE UNITED STATES—NUMBER, DEPOSITS, SURPLUS, RESOURCES.

[*From Reports of Comptroller of Currency.*]

YEAR	No. of Banks.	Deposits.	Resources.	Surplus.	Undivided Profits.	Capital Stock.
1890	921	$1,550,023,956	$1,742,617,001	$133,762,883	$22,744,766	$36,055,396
1891	1,011	1,654,826,142	1,845,517,069	130,042,098	25,815,395	43,833,434
1892	1,059	1,758,329,618	1,964.044,861	132,880,724	27,448,960	45,385,559
1893	1,030	1,808,800,262	2,013,775,147	137,456,126	26,177,344	41,341,415
1894	1,024	1,777,933,242	1,980,744,189	139,691,412	25,977,151	37,142,384
1895	1,017	1,884,357,798	2,053,764,328	147,762,594	26,447,047	35,196,889
1896	988	1,935,466,468	2,143,307,163	148,312,419	26,402,574	33,125,702
1897	980	1,983,413,564	2,198,824,474	159,954,756	24,012,463	31,443,691
1898	934	2,028,208,409	2,241,344,991	162,481,396	25,019,554	25,635,632
1899	942	2,182,006,424	2,400,831,472	173,807,848	21,457,150	23,560,050
1900	1,002	2,389,719,954	2,624,873,634	184,919,263	21,907,662	28,326,755
1901	1,007	2,518,599,536	2,756,505,103	185,858,754	30,312,416	21,734,397
1902	1,036	2,750,177,290				
1903	1,078	2,935,204,845				
1904	1,157	3,060,178,611	No. of depositors (1904), 7,305,443.			

SAVINGS BANKS OF THE UNITED STATES—DEPOSITORS, AVERAGE DEPOSITS, BY STATES, TERRITORIES AND DIVISIONS.

[*From Reports of Comptroller of Currency.*]

States, Territories, and Divisions.	1899–1900.			1900–1901.		
	Number of Depositors.	Amount of Deposits.	Average due each Depositor.	Number of Depositors.	Amount of Deposits.	Average to each Depositor.
Eastern.						
Maine	183,103	$66,132,677	$361.18	196,583	$69,533,058	$353.71
New Hampshire	136,544	53,896,711	394.72	134,482	57,128,616	424.80
Vermont	118,354	38,290,394	323.52	123,151	40,209,059	326.50
Massachusetts	1,491,143	533,845,790	358.01	1,535,009	540,403,687	352.05
Rhode Island	142,096	73,489,533	517.18	138,884	72,330,141	520.80
Connecticut	393,137	174,135,195	442.94	410,342	183,781,942	447.88
Total	2,464,377	$939,790,300	$381.35	2,538,451	$963,386,503	$379.52
Middle.						
New York	2,036,016	$922,081,596	$452.89	2,129,790	$987,621,809	$463.72
New Jersey	202,682	57,886,922	285.60	211,278	63,361,489	299.90
Pennsylvania	361,220	105,416,854	291.84	356,418	113,748,461	319.14
Delaware	20,300	5,027,395	247.65	23,307	5,511,495	236.47
Maryland	171,130	57,857,276	338.09	175,740	61,250,694	348.53
District of Columbia	3,360	421,313	125.39	5,635	831,832	147.62
Total	2,794,708	$1,148,691,356	$411.02	2,902,168	$1,232,325,780	$424.62
Southern.						
West Virginia	12,369	$1,926,407	$155.74	4,728	$563,264	$119.13
North Carolina	8,550	1,717,158	200.84	12,171	2,096,453	172.25
South Carolina	25,150	5,086,451	202.24	23,164	5,785,792	249.78
Florida	877	225,395	257.01	....	....	....
Louisiana	10,518	3,284,892	312.31	....	....	....
Texas	2,980	584,424	196.12	....	....	....
Tennessee	19,687	2,015,472	102 37	19,823	3,519,333	177.54
Total	80,131	$14,840,199	$185.20	59,886	$11,964,842	$199.79
Western.						
Ohio	99,592	$44,535,975	$447.18	90,803	$43,672,493	$480.96
Indiana	21,091	5,650,961	267.93	22,354	6,561,464	293.53
Illinois	208,992	64,777,036	309.95	258,916	80,251,287	309.95
Wisconsin	2,945	568,187	192.93	3,385	634,236	187.37
Minnesota	51,418	12,066,170	234.67	56,179	13,961,616	248.52
Iowa	160,773	58,208,115	362 05	203,227	73,578,268	362.05
Total	544,811	$185,806,444	$341.05	634,864	$218,659,364	$344.42
Pacific States and Territories.						
California	216,534	$158,167,462	$730.45	223,354	$170,758,091	$764.52
Utah	6,522	2,252,124	345.31	....	....	....
Total	223,056	$160,419,586	$719.19	223,354	$170,758,091	$764.52
Total United States	6,107,083	$2,449,547,885	$401.10	6,358,723	$2,597,094,580	$408.30

FOREIGN COIN VALUES IN UNITED STATES MONEY.

Country.	Standard.	Monetary Unit.	Value in U. S. Gold Dollar.	Country.	Standard.	Monetary Unit.	Value in U. S. Gold Dollar.
Argentine Republic	Gold	Peso	$0.96.5	Germany	Gold	Mark	.23.8
Austria-Hungary	Gold	Crown	.20.3	Great Britain	Gold	Pound sterling	4.86.6½
Belgium	Gold	Franc	.19.3	Greece	Gold	Drachma	.19.3
Bolivia	Silver	Boliviano	.42.8	Hayti	Gold	Gourde	.96.5
Brazil	Gold	Milreis	.54.6	India	Gold	Pound sterling	4.86.6½
Canada	Gold	Dollar	1.00	Italy	Gold	Lira	.19.3
Central America	Silver	Peso	.45.1	Japan	Gold	Yen	.49.8
Chile	Gold	Peso	.42.8	Mexico	Silver	Dollar	.46.4
China	Silver	Tael Shanghai	.63.2	Netherlands	Gold	Florin	.40.2
		Haikwan	.70.4	Newfoundland	Gold	Dollar	1.01.4
		Tientsin	.67.0	Norway	Gold	Crown	.26.8
		Canton	.68.9	Peru	Gold	Sol	.48.7
Colombia	Silver	Peso	.42.8	Portugal	Gold	Milreis	1.08
Costa Rica	Gold	Colon	.46.5	Russia	Gold	Ruble	.51.5
Cuba	Gold	Peso	.92.6	Spain	Gold	Peseta	.19.3
Denmark	Gold	Crown	.26.8	Sweden	Gold	Crown	.26.8
Ecuador	Silver	Sucre	.48.7	Switzerland	Gold	Franc	.19.3
Egypt	Gold	Pound (100 piasters)	4.94.3	Turkey	Gold	Piaster	.04.4
Finland	Gold	Mark	.19.3	Uruguay	Gold	Peso	1.03.4
France	Gold	Franc	.19.3	Venezuela	Gold	Bolivar	.19.3

GROWTH OF BANK DEPOSITS IN THE UNITED STATES.

According to the Treasury Bureau of Statistics, the deposits in banks of the country, at each five year period, grew in the following proportions and until they averaged $108 per capita; is thus shown:

1878	$1,878,434,270
1882	2,755,938,053
1887	3,255,772,134
1892	4,630,490,156
1897	5,196,847,530
1901	8,535,053,136

The figures for deposits in the various classes of banks are as follows:

National banks	$2,937,753,233
Savings banks	2,597,094,580
State banks	1,610,502,246
Loan and trust companies	1,271,081,174
Private banks	118,621,903
Aggregate	$8,535,053,136

BULLION VALUE OF THE SILVER DOLLAR.

The silver dollar contains 371.25 grains of pure silver, whose average bullion value since 1881 is shown in the following table. The table also shows the number of grains of silver at average price a silver dollar, counted at par, would purchase.

Years.	Average Bullion Value of a Silver Dollar.	Grains of Pure Silver Purchasable with a Silver Dollar at Par.	Years.	Average Bullion Value of a Silver Dollar.	Grains of Pure Silver Purchasable with a Silver Dollar at Par.
1881	$0.881	421.87	1891	.764	485.93
1882	.878	422.83	1892	.674	550.81
1883	.858	432.69	1893	.604	614.65
1884	.861	431.18	1894	.491	756.11
1885	.823	451.09	1895	.505	735.14
1886	.769	482.77	1896	.522	711.20
1887	.758	487.78	1897	.467	794.96
1888	.727	510.66	1898	.456	814.14
1889	.723	513.48	1899	.465	791.84
1890	809	458.90	1900	.479	774.10
			1902	.408	901.00

COINS AND COINAGE OF THE UNITED STATES—1793–1900.

Names of Coins.	When Coinage Authorized.	Weight.	Fineness and Composition.	Total Amount Coined to June 30, 1900.	Legal Tender.	Coinage Stopped.
GOLD:						
Double eagle	March 3, 1849	516 grains	.900	$1,538,826,000.00	Full	
Eagle	April 2, 1792	270–258 grains	.900	319,061,160.00	Full	
Half eagle	April 2, 1792	135–129 grains	.900	259,066,545.00	Full	
Quarter eagle	April 2, 1792	67.5–64.5 grains	.900	29,015,635.00	Full	
Three-dollar piece	Feb. 21, 1853	77.4 grains	.900	1,619,376.00	Full	Sept. 26, 1890.
One dollar	March 3, 1849	25.8 grains	.900	19,499,337.00	Full	Sept. 26, 1890.
SILVER:						
Dollar[1]	April 2, 1792	416–412½ grains	.89.24–.900	506,527,453.00	Full, except as in contract.	Feb. 12, 1873.
Trade dollar	Feb. 12, 1873	420 grains	.900	35,965,924.00	To $5–Not at all.	Feb. 19, 1887.
Half dollar	April 2, 1792	208–192.9 grains	.900	144,988,509.00	To $10	
Columbian half dollar	Aug. 5, 1892	192.9 grains	.900	2,501,052.50	To $10	Immediately.
Quarter dollar	April 2, 1792	104–96.45 grains	.900	63,763,021.50	To $10	
Columbian quarter dollar	March 3, 1893	96.45 grains	.900	10,005.75	To $10	Immediately.
Twenty-cent piece	March 3, 1875	77.16 grains	.900	271,000.00	To $10	May 2, 1878.
Dime	April 2, 1792	41.6–38.58 grains	.900	35,931,861.20	To $10	
Half dime	April 2, 1792	20.8–19.2 grains	.900	4,880,219.40	To $10	Feb. 12, 1873.
Three-cent piece	March 3, 1851	12⅜–11.52 grains	.900	1,282,087.20		Feb. 12, 1873.
MINOR COINS:						
Nickel five-cent	May 16, 1866	77.16 grains	75% copper, 25% nickel	17,967,308.10	To $1–25c.	
Nickel three-cent	March 3, 1865	30 grains	75% copper, 25% nickel	941,349.48	To 60c.–25c.	Sept. 26, 1890.
Two-cent (bronze)	April 22, 1864	96 grains	95% copper 5% tin and zinc.	912,020.00		Feb. 12, 1873.
Cent (bronze)	April 22, 1864	48 grains	95% copper, 5% tin and zinc.	10,072,758.59	To 25c.	
Cent (nickel)	Feb. 21, 1857	72 grains	88% copper 12% nickel	2,007,720.00		April 22, 1864.
Cent (copper)	April 2, 1792	264–168 grains		1,562,887.00		Feb. 21, 1857.
Half cent (copper)	April 2, 1792	132–104–84 grains		39,926.11		Feb. 21, 1857.

TOTAL PIECES COINED 1793 TO 1903.

Gold	213,494,891
Silver	1,810,823,124
Minor	2,200,732,378
Total pieces	4,225,050,323

VALUE OF COINAGE 1793-1903.

Gold	$2,396,457,235
Silver	895,363,768
Minor	41,535,105
Total	3,333,259,409

---

[1] Coinage reauthorized, February 28, 1878, and rediscontinued, except for certain purposes, July 1, 1891.

ESTIMATED STOCK OF GOLD AND SILVER IN THE UNITED STATES AND THE AMOUNT PER CAPITA AT THE CLOSE OF EACH FISCAL YEAR

[Report of Director of Mint.]

Fiscal Year Ending June 30—	Population.	Total Coin and Bullion.		Per Capita.		
		Gold.	Silver.	Gold.	Silver.	Total Metallic.
1873	41,677,000	$135,000,000	$6,149,305	$3.23	$0.15	$3.38
1874	42,796,000	147,379,493	10,355,478	3.44	.24	3.68
1875	43,951,000	121,134,906	19,367,995	2.75	.44	3.19
1876	45,137,000	130,056,907	36,415,992	2.88	.81	3.69
1877	46,353,000	167,501,472	56,464,427	3.61	1.21	4.82
1878	47,598,000	213,199,977	88,047,907	4.47	1.85	6.32
1879	48,866,000	245,741,837	117,526,341	5.02	2.40	7.42
1880	50,155,783	351,841,206	148,522,678	7.01	2.96	9.97
1881	51,316,000	478,484,538	175,384,144	9.32	3.41	12.73
1882	52,495,000	506,757,715	203,217,124	9.65	3.87	13.52
1883	53,693,000	542,732,063	233,007,985	10.10	4.34	14.44
1884	54,911,000	545,500,797	255,568,142	9.93	4.65	14.58
1885	56,148,000	588,697,036	283,478,788	10.48	5.05	15.53
1886	57,404,000	590,774,461	312,252,844	10.29	5.44	15.73
1887	58,680,000	654,520,335	352,993,566	11.15	6.00	17.15
1888	59,974,000	705,818,855	386,611,108	11.76	6.44	18.20
1889	61,289,000	680,063,505	420,548,929	11.09	6.86	17.95
1890	62,622,250	695,563,029	463,211,919	11.10	7.39	18.49
1891	63,975,000	646,582,852	522,277,740	10.10	8.16	18.26
1892	65,520,000	664,275,335	570,313,544	10.15	8.70	18.85
1893	66,946,000	597,697,685	615,861,484	8.93	9.20	18.13
1894	68,397,000	627,293,201	624,347,757	9.18	9.13	18.31
1895	69,878,000	636,229,825	625,854,949	9.10	8.97	18.07
1896	71,390,000	599,597,964	628,728,071	8.40	8.81	17.21
1897	72,937,000	696,270,542	634,509,781	9.55	8.70	18.25
1898	74,522,000	861,514,780	637,672,743	11.56	8.56	20.12
1899	76,148,000	962,865,505	639,286,743	12.64	8.40	21.04
1900	76,891,000	1,034,439,264	647,371,030	13.45	8.42	21.87
1901	77,754,000	1,124,652,818	661,205,403	14.47	8.50	22.97
1902	78,400,000	1,174,600,000	650,000,000	14.98	8.48	22.98
1903	....	1,277,362,651	658,712,348	....	....	....

BUSINESS OF UNITED STATES MINTS AND ASSAY OFFICES,

[Reports of Director of Mint.]

DEPOSITS, BARS MANUFACTURED, AND COINAGE.

Institutions.	Deposits.		Bars Manufactured.			
			Gold.		Silver.	
	1900.	1901.	1900.	1901.	1900.	1901.
Philadelphia	$62,298,582.28	$32,204,226.71	$2,209,704.97	$3,121,539 27	$99,680.68	$128,748.09
San Francisco	60,459,762.81	79,555,080.19	3,957.77	966.49	494,670.66	283,995.83
Carson	203,858.85	277,137.58	190,483.46	266,121.52	13,375.39	11,016.13
New Orleans	16,467,722.32	29,084,926.09	6,112.37	6,868.35	5,841.15	3,711.81
New York	63,806,838.73	60,758,496.14	57,963,422.83	55,790,434.68	7.647,808.53	4,838,903.75
Denver	17,098,424.96	18,233,947.35	16,997,559.00	18,142,841.01	99,481.46	89,500.31
Boise	1,961,973.70	1,614,654.65	1,692,986.82	1,582,145.07	34.600.08	31,986.15
Helena	2,032,420.49	2,208,512.74	1,992,864.02	2,160,911.96	38,707.07	46,251.28
Charlotte	267,831.42	222,925.49	266,595.55	221,817.16	1,235.87	1,108.96
St. Louis	126,967.50	89,254.59	125,003.86	88,675.92	1,158.72	579.86
Deadwood	284,342.14	312,592.87	281,721.73	307,709.71	2,620.41	4,883.95
Seattle	13,747,011.04	21,707,166.29	13,536,756.64	21,409.559.99	210,127.12	296,637.95
Total	$238,755,736.24	$246,268,920.60	$95,267,169.02	$103,099,591.13	$8,649,307.14	$5,737,324.07

Institutions.	Gold Coinage.		Silver Coinage.		Minor Coinage.	
	1900.	1901.	1900.	1901.	1900.	1901.
Philadelphia	$56,390,640.00	$24,583,215.00	$12,794,820.40	$15,666,572.50	$2,243,017.21	$2,009,568.08
San Francisco	51,176,000.00	74,482,500.00	2,850,012.75	5,728,926.00	....	....
New Orleans	370,470.00	....	15,527,000.00	13,870,000.00	....	....
Total	$107,937,110.00	$99,065,715.00	$31,171,833.15	$35,265,498.50	$2,243,017.21	$2,009,568.08

DEPOSITS OF GOLD AT UNITED STATES MINTS AND ASSAY OFFICES

[*Report of Director of Mint.*]

FISCAL YEAR.	CHARACTER OF GOLD DEPOSITED.					Total.
	Domestic Bullion.	Domestic Coin (Coining Value).	Foreign Bullion.	Foreign Coin (U. S. Coining Value).	Jewelers' Bars, Old Plate, Etc.	
1873	$28,868,569.78	$27,116,948.27	$426,107.44	$518,542.14	$774,218.25	$57,704,385.88
1874	29,736,387.82	6,275,367.29	3,162,519.92	9,313,882.47	654,353.56	49,142,511.06
1875	34,266,124.52	1,714,311.50	739,439.66	1,111,792.26	724,625.96	38,556,293.90
1876	37,590,529.39	417,947.15	1,141,905.76	2,111,083.80	681,819.32	41,943,285.42
1877	43,478,103.93	447,339.68	1,931,163.12	2,093,260.73	837,911.25	48,787,778.71
1878	48,075,123.76	301,021.79	2,068,679.05	1,316,461.09	907,932.20	52,669,217.89
1879	38,549,705.89	198,083.17	1,069,796.89	1,498,819.71	937,751.14	42,254,156.80
1880	35,821,705.40	209,328.82	21,200,997.23	40,426,559.63	1,176,505.77	98,835,096.85
1881	35,815,036.55	440,776.97	37,771,472.26	55,462,385.74	1,343,430.93	130,833,102.45
1882	31,298,511.97	599,356.80	12,783,807.04	20,304,810.78	1,770,166.36	66,756,652.95
1883	32,481,642.38	374,129.23	4,727,143.22	6,906,083.80	1,858,107.42	46,347,106.05
1884	29,079,596.33	263,117.17	6,023,734.45	9,095,461.45	1,864,769.26	46,326,678.66
1885	31,584,436.64	325,210.97	11,221,846.45	7,893,217.77	1,869,363.26	52,894,075.09
1886	32,456,493.64	393,545.28	4,317,068.27	5,673,565.04	2,069,077.00	44,909,749.23
1887	32,973,027.41	516,984.63	22,571,328.70	9,896,512.28	2,265,219.85	68,223,072.87
1888	32,406,306.59	492,512.60	21,741,042.44	14,596,885.03	2,988,750.90	72,225,497.56
1889	31,440,778.93	585,066.87	2,136,516.66	4,447,475.99	3,526,597.31	42,136,435.76
1890	30,474,900.25	655,474.96	2,691,932.29	5,298,773.93	3,542,013.83	42,663,095.26
1891	31,555,116.85	583.847.16	4,054,822.86	8,256,303.80	4,035,710.15	48,485,800.82
1892	31,961,546.11	557,967.86	10,935,154.69	14,040,187.70	3,636,603.68	61,131,460.04
1893	33,286,167.94	792,470.43	2,247,730.78	6,293,296.33	3,830,176.02	46,449.841,50
1894	38,696,951.40	2,093,615.46	15,614,118.19	12,386,406.81	3,118,421.45	71,909,513.31
1895	44,371,949.83	1,188,258.21	14,108,435.74	2,278,614.07	3,213,809.43	65,161,067.28
1896	53,910,957.02	1,670,005.53	6,572,390.14	3,227,409.06	3,388,622.06	68,769,383.81
1897	60,618,239.77	1,015,314.39	9,371,521.03	13,188,013.86	2,810,248.66	87,003,337.71
1898	69,881,120.57	1,187,682.99	26,477,370.06	47,210,077.84	2,936,943.37	147,693,194.83
1899	76,252 487.23	1,158,307.57	30,336,559.47	32,785,152.48	2,964,683.90	143,497,190.65
1900	87,458,836.23	1,389,096.68	22,720,150.22	18,834,495.53	3,517,540.93	133,920,119.59
1901	92,929,695.86	1,116,179.86	27,189 659.12	27,906,489.13	3,959,656.64	153,101,680.61
Total	$1.237.320.049.99	$54.079.269.29	$327,354,413.15	$384,372,020.25	$67,205,029.86	$2,070,330,782.54

Total gold deposits, 1902, $132,580,830; 1903, $127,004,443.

FAILURES IN THE UNITED STATES AND AGGREGATE LIABILITIES, ANNUALLY.

[*Dun's Review.*]

CALENDAR YEARS.	Number of Failures.	Number of Business Concerns.	Per Cent of Failures.	Liabilities.	CALENDAR YEARS.	Number of Failures.	Number of Business Concerns.	Per Cent of Failures.	Liabilities.
1879	6,658	702,157	0.95	$98,149,053	1891	12,273	1,142,951	1.07	$189,868,638
1880	4,735	746,823	.63	65,752,000	1892	10,344	1,172,705	.88	114,044,167
1881	5,582	781,689	.71	81,155,932	1893	15,242	1,193,113	1.28	346,779,889
1882	6,738	822,256	.82	101,547,564	1894	13,885	1,114,174	1.25	172,992,856
1883	9,184	863,993	1.06	172,874,172	1895	13,197	1,209,282	1.09	173,196,060
1884	10,968	904,759	1.21	226,343,427	1896	15,088	1,151,579	1.31	226,096,834
1885	10,637	919,990	1.16	124,220,321	1897	13,351	1,058,521	1.26	154,332,071
1886	9,834	969,841	1.01	114,644,119	1898	12,186	1,005,830	1.10	130,662,899
1887	9,634	994,281	.90	167,560,944	1899	9,337	1,147,595	.81	90,879,889
1888	10,679	1,046,662	1.02	123,829,973	1900	10,774	1,174,300	.92	138,495,673
1889	10,882	1,051,140	1.04	148,784,337	1901	11,002	1,219,242	.90	113,092,376
1890	10,907	1,110,590	.98	189,856,964	1902	11,615	1,253,172	.93	117.476,769
					1903	12,069	1,281.481	1.12	155,444,185

BUILDING AND LOAN ASSOCIATIONS.

At the annual meeting of the United States League of Building and Loan Associations, July 23, 1902, the secretary reported the following as the status of these associations in the country:

	Associations.	Membership.	Assets.		Associations.	Membership.	Assets.
Pennsylvania	1,168	299,573	$110,817,281	Nebraska	59	17,926	4,314,744
Ohio	757	300,315	105,374,306	Wisconsin	50	12,975	3,462,629
Illinois	546	80,850	43,684,289	Maine	34	8,073	2,865,380
New Jersey	327	100,700	46,599,451	Kansas	40	9,974	2,807,966
New York	283	86,042	34,996,485	Tennessee	20	4,157	2,428,450
Indiana	403	112,822	22,292,668	Minnesota	15	2,300	1,191,720
Massachusetts	128	74,771	28,674,207	New Hampshire	16	4,800	1,853,092
California	138	40,561	17,881,576	North Dakota	6	2,000	428,684
Missouri	148	27,000	9,394,372	Louisiana	32	20,885	5,943,208
Michigan	63	31,787	9,386,764	Other States	990	271,000	95,100,000
Iowa	63	18,000	4,645,046				
Connecticut	16	13,082	4,245,648	Totals	5,302	1,539,593	$565,387.966

The 1904 report showed 5,308 associations: membership, 1,566,700; assets, $579,556,112.

AMOUNTS OF GOLD AND SILVER COIN AND CERTIFICATES, UNITED STATES NOTES, AND NATIONAL-BANK NOTES IN CIRCULATION AND IN THE TREASURY

From the Bureau of Statistics.

[NOTE.—Population of the United States July 1, 1903, estimated at 80,847,000; circulation per capita, $29.39.]

CLASSIFICATION.	General Stock of Money in the United States. July 1, 1903.	Held in Treasury as Assets of the Government. July 1, 1903.[1]	MONEY IN CIRCULATION.			
			June 1, 1903.	July 1, 1903.	July 1, 1902.	Jan. 1, 1879.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Gold coin (including bullion in Treasury)	1,252,731,990	252,142,955	623,982,009	621,545,146	629,271,532	96,262,850
Gold certificates[2]	....	....	381,254,489	379,043,889	377,110,929	21,189,280
Standard silver dollars	554,216,156	26,786,812	73,417,209	72,349,806	68,621,718	5,790,721
Silver certificates[2]	....	....	456,586,731	455,079,538	446,650,243	413,360
Subsidiary silver	101,606,809	9,411,209	91,867,189	92,195,600	82,814,940	67,982,601
Treasury notes of 1890	19,243,000	133,330	19,866,742	19,109,670	29,862,445	....
United States notes	346,681,016	10,089,644	34,109,538	336,591,372	336,265,855	277,098,511
Currency certificates, Act of June 8, 1872[2]	....	....	....	....	....	33,190,000
National-bank notes	413,670,650	13,262,461	395,090,918	400,408,189	345,931,750	314,339,398
Total	2,688,149,621	311,826,411	2,382,174,825	2,376,323,210	2,246,529,412	816,266,721

[1] This statement of money held in the Treasury as assets of the Government does not include deposits of public money in national-bank depositories, to the credit of the Treasurer of the United States, and amounting to $143,350,752.43.

[2] For redemption of outstanding certificates an exact equivalent in amount of the appropriate kinds of money is held in the Treasury and is not included in the account of money held as assets of the Government.

PAPER CURRENCY OF EACH DENOMINATION OUTSTANDING AT END OF THE FISCAL YEAR 1903.

[Prepared by Treasurer's Office.]

DENOMINATION.	United States notes.	Treasury notes of 1890.	National-bank notes.	Gold certificates.	Silver certificates.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
One dollar	1,948,854	770,784	345,959	....	79,300,183	82,365,780
Two dollars	1,505,364	612,756	165 960	....	44,590,188	46,874,268
Five dollars	18,214,025	5,035,310	61,798,905	....	264,025,068	349,073,308
Ten dollars	233,501,631	8,324,790	172,263,760	....	46,952,781	461,042,962
Twenty dollars	40,682,442	3,310,810	127,446,540	156,671,764	23,547,150	351,658,706
Fifty dollars	6,686,300	57,250	16,676,550	33,056,005	4,301,110	60,777,215
One hundred dollars	12,572,900	610,300	34,815,200	43,465,100	1,793,020	93,256,520
Five hundred dollars	7,701,500	....	96,500	13,095,500	57,500	20,951,000
One thousand dollars	24,848,000	521,000	25,000	47,396,500	139,000	72,929,500
Five thousand dollars	10,000	....	....	28,425,000	....	28,435,000
Ten thousand dollars	10,000	....	....	87,000,000	....	87,010,000
Fractional parts	....	....	36,276	....	....	36,276
Total	347,681,016	19,243,000	413,670,650	409,109,869	464,706,000	1,654,410,535
Unknown, destroyed	1,000,000	....	....	....	....	1,000,000
Net	346,681,016	19,243,000	413,670,650	409,109,869	464,706,000	1,653,410,535

The Art of

Correspondence

CORRECT & EASY
PENMANSHIP

History of the English Language

Says a Roman writer: "Care should be taken, not that the reader may understand if he will, but that he shall understand, whether he will or not"

To “TALK ON PAPER”

Is a Prime Business Feat

Here is the Whole Art, from Alpha to Omega

PENMANSHIP, TOO, IS A TELLING ACCOMPLISHMENT
PROPER ENGLISH IS INDISPENSABLE

This Treatise tells you of the

- Object of Letter-writing
- Styles and Kinds of Letters
- How to Address Persons of Title and Rank
- Letter Arrangement
- Opening and Closing Addresses
- Kinds of Paper to Use
- Folding, Envelopes and Superscriptions
- Object Lessons by Diagrams
- General Suggestions in Brief
- Contractions Used in Correspondence
- Business Letter Forms
- Direct and Reply Letters
- Letters of Application
- Letters of Recommendation
- Letters of Introduction
- Answers to Advertisements
- Letters of Certificate
- Letters of Congratulation
- Letters of Apology
- Letters of Friendship and Courtesy
- Letters of Condolence and Advice
- Daughters to Mothers and Answers
- Husbands to Wives and Answers
- Sons to Fathers and Answers
- Love Letters
- Letters of Description
- Marriage Proposal
- Marriage and Home Invitations
- Reception Cards
- Rules of Grammar and Composition
- Laws of Punctuation
- Meanings of Punctuation Marks

CORRECT AND EASY PENMANSHIP

- Kinds of Writing
- Most Legible Writing
- Arm Movements
- Specimens of Handwriting
- Advantage of Vertical Writing
- Correct Position in Writing
- Holding Paper and Pen
- Slow and Fast Writing

HISTORY OF THE ENGLISH LANGUAGE

- Origin of English
- Periods of English
- Evolution of English Speech
- Foreign Elements in Our Language
- Making of English Words
- Birth of Pure English
- Strength and Beauty of English
- Choice of English Words

The good letter-writer is a jewel in a business house or home. You have here all the secrets of the high and desirable art of talking on paper as if you were face to face with your friend.

Art of Correspondence.

Object.—A letter has been defined as "a talk on paper"; also as "conversation at a distance." Its prime object is to accomplish by writing what a sender could accomplish if face to face with the receiver. Therefore the language of a letter should, as nearly as possible, comport with the writer's ordinary speech. If one can converse properly, he will hardly fail to write a proper letter, being observant, of course, of the amenities that surround and enter into situations and control the relations of writer and the person addressed.

Styles and Kinds.—Letters naturally group themselves into styles or kinds, the most important of which is the business letter, which requires brief and pointed expression, after the writer's natural style, yet with such adherence to the forms and usages which custom has established among business men as may be found necessary. Letters of friendship and love may be longer and less specific and formal than those of business. In fact they invite and encourage details, sometimes of narrative, at others of moods of the hour, and again of heart revelations, or incidents of every-day home life. They should be simply, pleasingly and naturally written. There is a lengthy category of letters which falls under the head of letters of courtesy. Among such are letters of introduction, recommendation, condolence, invitation, acceptance, congratulation, etc. In polite society many of these follow conventional forms and leave little opportunity for the exercise of originality. Then there is a class of public or open letters, usually addressed to newspaper publishers or to prominent persons, and designed to be read in printed form by the general public. In the preparation of such letters great tact is required, for the points must be made to tell, or they are worthless. Care must be taken to avoid offence, for such letters are generally of a critical or polemical kind, and their sharp edges should be relieved by judicious language and respect for situations and circumstances.

Letter Arrangement.—The customary arrangement, form or parts of a letter is: (1) The heading or address, which embraces a statement of your city, town, village, business location, post-office (if rural) or house number, in connection with date. It should appear at the upper right-hand corner of the letter, and may consist of either one or two lines dependent on its fulness. Thus:

LANCASTER, PA., June 8, 1905.

or, if desirable,

763 NORTH QUEEN STREET,
LANCASTER, PA., June 8, 1905.

It is always well to write the State contraction after the name of the town. (2) The salutation or complimentary address. The essentials of a full and formal salutation are the name of the addressee, the title, the location and the compliment, the whole appearing at the upper left side of the letter sheet, about one rule below the address. In business it should take this shape:

MR. WILLIAM B. ROBERTS,
Harrisburg, Pa.
MY DEAR SIR:

Observe, that this form is compact and neat, and, if the *Mr.* and *My* are started within an inch of the left edge of the paper, it leaves ample space on the sheet for the first line of the body of the letter. But while the place and general style of this salutation must be preserved, it may vary in precise form to suit circumstances. Thus, if a married woman is addressed, the words, *My dear Madam* must take the place of *My dear Sir.* Again, the form may vary when the relations between sender and receiver are so intimate, or the ages are such, as to warrant departure from it. Thus, if you are intimate with the person addressed, the salutation may properly become simply *Dear Mr. Roberts,* or, if a woman, *Dear Mrs. Harper.* So, if the receiver be younger than the sender or of less experience, the latter is justified in the use of the still more patronizing salutation, *My dear Mr. Roberts,* or *My dear Mrs. Harper.* In letters of a strictly friendly nature, where a sense of chumminess is felt, or when a boy or one younger than the writer is addressed, the simple salutation, *My dear William* (or even *Bill*), or *My dear Smith,* becomes proper. In writing to an unmarried lady with whom you are on familiar terms, the salutation may well be simply *Dear Miss Jones,* but if you are not acquainted with her, the more formal salutation of *Miss Elizabeth Smith* must be used.

The use of *Dear Friend, Kind Friend,* as part of the salutation is gradually passing away. The proper salutation when a business firm is addressed is

MESSRS. SMITH & RILEY.
GENTLEMEN:

or, the word *Sirs* may be substituted for *Gentlemen.* (3) The body of the letter should begin at a point immediately below the last letter of the salutation. In turning the lines leave a comfortable margin on the left of the paper; do not cramp your writing; make paragraphs when the subject changes; use unruled paper if you can, or place a scrap-sheet heavily ruled with ink beneath your letter-sheet; seek brevity and pointedness in all business letters; use good ink and pen; do not scrawl. (4) Following the body of the letter comes the complimentary closing. The style of this should comport with the salutation; that is, if the latter be formal the complimentary closing must be formal, and if the salutation be familiar the closing may be familiar. It should begin with a capital, on a line below the body of the letter, and its first word should be beneath the last word of the body, provided there is space enough to the right to admit of the words used. Customary complimentary closing words are *Yours truly, Yours cordially, Very truly yours, Respectfully yours,* etc. Social letters admit of less formal closings than business letters. (5) The signature should begin the space of a rule below the closing, and the first letter of the signature should correspond with the centre of the closing words. It should be plainly written, and the tendency to set it off with flourishes should be guarded against.

Closing Address.—To close with the name and address of the recipient is growing in favor as a sixth arrangement or part of a letter, especially when it is addressed to a public official, or relates to public affairs. Its location is at the lower left hand corner of the letter, and it embraces the name and place of the person addressed, which have, of course, been omitted from the salutation.

Sample Arrangement.—Bringing the foregoing parts of a letter together, the arrangement would appear thus:

(Date or address.)
763 NORTH QUEEN STREET,
LANCASTER, PA., June 8, 1905.

(Salutation or complimentary address.)
MR. WILLIAM B. ROBERTS,
Harrisburg, Pa.
MY DEAR SIR:

(Body of the letter.)

Owing to a prior business engagement, it will be impossible for me to meet you at the time and place named in your favor of the 3d inst.

(Complimentary closing.)
Very truly yours,
(Signature.)
REUBEN JONES.

Or, if it is intended to use the closing name and address, the arrangement would be:

(Date or address.)
HALL OF H. R.,
WASHINGTON, D. C., May 9, 1905.

(Salutation.)
MY DEAR SIR:

(Body of the letter.)

I regret to say that the bill in which you are interested, relating to the irrigation of arid lands, has not yet been reported from the Committee on Irrigation. It is to be hoped that it will soon be favorably considered and reported.

(Complimentry closing.)
Very truly yours,
(Signature.)
JAMES R. YOUNG.

(Name.)
Robert L. Smyth,
(Address.)
Buffalo, N. Y.

Roosevelt to Henderson.—The following is an actual letter sent under its date by President Roosevelt to Speaker Henderson:

WHITE HOUSE, WASHINGTON, March 4, 1905.

MY DEAR MR. SPEAKER:

As I did not see you to-day at the Capitol, I wish to write you a line to congratulate you on the work accomplished by the Congress which has just closed. There were certain measures of importance, the failure to act upon which I greatly regretted, but it is nevertheless true that, taken as a whole, no other Congress of recent years has to its credit a record of more substantial achievement for the public good than this, over the lower branch of which you presided. I congratulate you and it; and I wish you well wherever your future may lead you.

Sincerely yours,
THEODORE ROOSEVELT.

Hon. D. B. Henderson,
House of Representatives.

Paper.—Writing paper should be of good quality and adapted in size and shape for its purpose. Paper of the legal-cap size and style, with the left-hand margin ruled off, is used in the preparation of legal documents, such as wills, articles of agreements, depositions, etc. Bill paper is of shorter length than legal-cap. It is specially ruled for its purpose, and usually contains at its top, or as a heading, the printed name of the person or company using it, and the business. It should be of clear, firm texture. Fools-cap paper is in general use for petitions, subscriptions, essays, etc. Social or friendly letter paper is of a special size, usually about four-fifths the length of fools-cap; or, say, 8 by 10 inches. Note paper is about 5 by 8 inches in size as a rule, and billet paper is still smaller. These are both used when the contents of a letter are brief, as in the case of invitations, acceptances or excuses. In business letters both the above mentioned note and letter sizes may be used, preferably the latter. In business single sheet letters are preferable to double. Colored paper should be eschewed in any kind of a letter.

Folding a Letter.—Begin to fold your letter by bringing the bottom edge flush with the top edge, holding the corners tightly and creasing across the centre with the right hand. Then turn the doubled paper around and fold again from the bottom to the top and crease twice, the other way. As thus folded, the size should always be a fraction smaller than your envelop, so as to render insertion easy. This fold, which is always neat and easy, should have been previously ascertained as the one suited to your envelop, or you should have provided an envelop suited to it. Smaller sizes of paper do not admit, of course, of this style of folding, a single fold often bringing them to the dimensions of the envelops. It is always best to have the letter, when folded, of a size to fill quite fully the inner space of the envelop.

Envelops.—Though envelops vary greatly in size and shape, the selection should be one suited to the size of letter paper used, or *vice versa.* Many persons, especially ladies, prefer a square envelop, whose length corresponds to the width of the letter sheet. This enables them to insert the letter readily with a single fold. Many colors of such envelops are in constant demand, but it is doubtful if any color excels white for real good taste. Business envelops should be of rectangular shape, and the most convenient dimension is 3½ inches by 6½ inches. This readily accommodates the thrice folded business sheet of 8 by 11 inches, which is a standard size in all first-class business houses. Such an envelop also admits of a full, free superscription, and is susceptible of easy handling in the mails.

Superscriptions.—A most important part of a letter is the superscription or writing the address on the face of the envelop, after sealing. A letter of recommendation should never be sealed, and it is regarded by many as a breach of etiquette to seal a letter handed to one for personal delivery to a recipient. This is a matter that must be left to individual taste. Remember, an envelop has an upper and lower side or edge. The upper side is that which has the flap. When the letter is sealed, the upper side should be kept uppermost to receive the superscription. Nothing appears more careless and slipshod than a letter addressed wrong side up. Every writer of letters should accustom himself or herself to writing superscriptions in a straight line across the envelop without the aid of a rule. If compelled to use a rule, make a slight lead-pencil mark which can be readily erased. Begin the superscription a little above the centre of the envelop, measuring from top to bottom, and half way between the centre and left edge, measuring from right to left, or sufficiently far to the left to admit of the name and titles without cramping. The importance of writing the envelop address in a clear, readable hand can be appreciated when it is considered that 11,000,000 ill-addressed letters find their way to the dead-letter office in a year. The next element of a superscription is the post-office. It should be written a rule space below the name, beginning a little to the right of it, but always sufficiently far to the left to admit of the post-office in full, clear writing. Nothing is required but the simple name of the post-office. It was formerly customary to place the letters P. O. after the name of the post-office, but this is superfluous. It was also formerly customary to write beneath the name of the post-office the county. This is not only superfluous but dangerous, for there is danger of clerks in their hurry, especially those who assort and throw off mail from swiftly moving trains, mistaking the county for the post-office, and sending the letter astray. If a writer feels that a designation by the county is at all proper or necessary, he should write it separately on the lower left-hand corner of the letter, away from the name of the post-office. So, if any other extra matter is deemed necessary on the envelop, such as the number of the post-office box or of the street, it should be inserted in the lower left-hand corner. This is a good rule in spite of the quite general practice of inserting the number and street between the name of the person and post-office. The next element of a proper superscription is the State. This is most essential, and greater care is required with it than with any part of the address, for though there is only one post-office of the same name in any State, there are many of like names throughout the several States. Then the States are usually designated by their abbreviations. These should be most carefully written. Being at the close of the address, the tendency is to hurry with them, and very often an Me. is mistaken for an Mo., or a Col. for a Cal., all of which is bound to send a letter astray, if post-offices of like name exist in the respective States.

Stamp and Return.—For the convenience of all concerned, as well as for esthetical reasons, the stamp should always find its place at the upper right-hand corner of the envelop. The government has designated the proper spot on its paid envelops. Be sure to place it perpendicularly and to see that it is right-end up. Nothing shows more carelessness, if not disrespect for an addressee, than the placing of a stamp upside-down on a letter. See that the gum is properly moistened and that the stamp is made to adhere securely. Many of these may appear like little things, but they are all a part and parcel of neat and intelligent correspondence, and neglect of them affords pretty good proof that the writer of a letter has been remiss in other respects. It has become quite common of late to write, or have printed, on the upper left-hand-corner of envelops a notice or request to the post-office authorities to return the addressed letter, if it is not called for within a specified number of days. This becomes important if the letter is addressed to the general delivery department of a city post-office, or to any one who is constantly changing his address. This notice is not reduced to any particular form, though it generally reads: *"If not called for in 5 (or 10) days, please return to John R. Jones, Richmond, Va.;* or the name of the sender may be left out, and merely the post-office and street number mentioned. A return can be effected by simply writing or printing the sender's name and address in place of the above request, for the authorities will, after thirty days' time, return the undelivered letter to the sender instead of sending it to the dead-letter office. Undelivered letters are not sent to the dead-letter office until thirty days after they are advertised.

Object Lesson.—Applying the foregoing rules for a superscription, and rendering them objective, they would take the following forms. A perfectly plain superscription would be thus:

[STAMP]

Mr. John S. Worthington
Annapolis
Md.

If for any reason it be regarded as necessary to give the county, the proper form would be:

[STAMP]

Mr. George B. Smith
Ephrata
Lancaster Co. *Pa.*

A superscription containing a street address would appear thus:

[STAMP]

Miss Lilian Work
Philadelphia
233 Vine St. *Pa.*

A box address takes this form:

[STAMP]

Mr. James Hart
Lancaster
Box 246 *Pa.*

A superscription containing notice of return takes this form; or, it may appear in the lower left-hand corner:

If not called for in 10 days
return to
JAMES RISK,
Bethlehem, Pa.

[STAMP]

Mr. Simon J. Harkness
Chicago
Ill.

Or, the simple business card of the sender will secure the same end, thus:

John K. Evarts,
Attorney at Law,
Chester, Pa.
[STAMP]

Mr. Robert P. Gentry
Petersburg
Va.

A plain address on an envelop directed to a firm should read:

[STAMP]

Messrs. King, Morgan & Co.
Ogdensburg
N. Y.

A letter not sent through the mail, but intended to be delivered by a carrier, takes this superscription:

Mr. William Jones
Presented

If it is desirable to acknowledge obligation to the bearer, which is frequently the case for courtesy's sake, the address should be:

Mrs. Eliza K. Swift
26 Queen St.
Lancaster
Pa.
Politeness of
Mrs. J. O. Brown

Of course it will be observed that the name line of the superscription follows closely, if it is not identical with, the name line in the salutation on the inside of the letter. Therefore there is little liability to a mistake in the form of the name line, if that adopted in the salutation be repeated in the superscription. We, therefore, recommend that all correspondents make a clear study of the preceding discussion of salutations, and of the enlargement of the same as found under the head of Use of Titles.

Suggestions in Brief.

Spirit.—In seeking clearness and plainness of expression in your correspondence, be careful not to dwarf your own spirit. The sacrifice of naturalness to style is unfair to a writer. It leads to stiffness and to loss of force.

Official Letters.—The salutation *Sir* is a proper one when an ordinary official is addressed, and in writing to department officials it is preferable to address the office, thus:

To the Secretary of the Treasury.
Sir:

An official may properly place his official designation beneath his signature.

Shipments.—In a letter advising one of the shipment of goods, be particular to send specific directions as to the route, thus:

Shipped via P. R. R., Adams Express.

Ordering.—Make everything explicit in your orders. State clearly the amount and kind of goods, and terms of purchase. If a remittance is sent, mention the amount and how remitted.

Writing.—Slovenly writing is a mark of disrespect. Don't economize paper by cross-writing. Avoid interlineations, blots and erasures. Write legibly in black ink. Eschew colored inks. Spell correctly. Make free use of the dictionary. Punctuate carefully. Paragraph properly as the subjects require. If you use more than one sheet, arrange them in order and page them. Don't write on both sides of a letter sheet, if you use single sheets. Single sheets are best for business purposes.

Stamps.—Make sure you have put on as many stamps as the weight of your letter or package requires. Enclose a return stamp in a letter asking for information, unless you are very intimate with the person addressed.

Cards.—Neither salutation or complimentary close is required on a postal card.

Promptitude.—It is a prime requisite of good correspondence to reply promptly. This is especially true of business letters, letters of invitation, and all appertaining to visits and appointments. When money has been received in a letter, count immediately and acknowledge receipt without delay. Don't wait a week before thanking in writing a hostess whose house you have visited.

Business.—It is not good taste to blend friendship, or private confidence or discussion with the contents of a business letter. It foils your object. Stick to your text. Business is business.

Sealing.—Long distance letters, especially those crossing the sea, should be sealed with wax. Moisture is apt to soften mucilage and to open letters sealed with it. The same rule holds as to letters containing valuables, or whose written contents are very precious.

Figures.—The use of figures for dates, sums of money, population, etc., is proper in correspondence, but it is improper to use them in other connections. You should not say, *I enclose you 9 samples,* but *nine samples.* After date figures, do not write the contractions *st., th., d.,* etc., but only the plain figures—*January 9, 1903.* But this does not hold when a date in the body of the letter is followed by a word, as *5th instant.*

Copies.—Copies of all important business, or other, letters should be taken on a letter-press and carefully preserved. Writing on both sides of a letter sheet makes the copying process difficult.

Anonyms.—There is something particularly vulgar and cowardly about an anonymous letter. No lady or gentleman ever writes or sends one.

Replies.—In a reply letter, be sure to mention the date of the letter to which you are replying, and enough of the contents, or such intimation of them, as will serve to remind the recipient of the subject written about: thus, "Your favor of the 5th instant, relating to the price of woolens, at hand."

Contractions.

Inst.—As used in correspondence, the word *instant,* meaning the present or current month, is contracted into *inst.* Observe that a contraction is always followed by a period, which shows a contraction.

Prox.—*Proximo* is the Latin word for *next,* which, in correspondence, has come to stand for *next month.* It is not written out, but is expressed in the abbreviated form of *prox.*

Ult.—The Latin word *ultimo* means *last,* and in correspondence *last month,* or *the month just past.* It is abbreviated into *ult.* or *ulto.,* generally the former.

&c., etc.—The character &c. is an abbreviated form of *and so forth,* which in Latin is *et cetera,* meaning literally *among other things. &c.* is somewhat old fashioned, and in modern correspondence we more frequently see its equivalent, *et cetera,* appearing in the contracted form of *etc.,* which is handier to indicate.

Balt.—The modern tendency to abbreviate the names of towns in correspondence is to be deprecated. However convenient it may be in the body of a letter as conducing to speedy writing, it should by all means be avoided in inside and outside addresses, as defeating the very object of an address, *viz.,* the securing of certainty. Thus *Balt.* as a contraction for Baltimore may lead to uncertainty. *Phil.* as a contraction for Philadelphia may stand for half a dozen other places.

Jr.—The word *junior,* younger, is contracted into *Jr.,* which abbreviation must be started with a capital letter, and always finds its place in an address immediately after the name, thus, *William J. Smith, Jr.* Remember it is not a distinguishing word in the sense of a title, but only draws the line between an elder and younger person, usually father and son, of the same name. Where there are three persons in a family of the same name, as father, son and grandson, it is growing quite common to distinguish them as I., II., III., the position being the same as Jr.

Sr.—The word *senior* means elder. Its contraction is *Sr.,* and its position is immediately after the name, the same as Jr. It should begin with a capital.

Esq.—The abbreviation of *Esquire* is *Esq.,* beginning with a capital. Esquire formerly meant an armor-bearer to a knight. Then it became a title of dignity between a knight and gentleman. In this country it is merely a title of courtesy appended to the names of lawyers and magistrates. In the former case it is gradually falling out of use. When used in the above cases no first title is proper. Thus, we cannot say *Mr. Joseph H. Taft, Esq.,* but must say *Joseph H. Taft, Esq.* If, in this instance, the man be a lawyer, it is better to say *Joseph H. Taft, Atty. at Law.*

Mr.—The customary abbreviation of *Mister,* in correspondence, is *Mr.,* beginning with a capital letter. It is merely a title of courtesy, and is always prefixed to the name. Its old form was *Master.* It is derived from the Latin *magnus,* great, and comes to us through the French *maistre. Mr.* is not only used before the full name of a person, but the last name also, as *Mr. Jones.* So it is in universal use to designate functionaries, as *Mr. Chairman, Mr. Speaker, Mr. President, Mr. Editor,* etc. When a boy is addressed, he is entitled *Master,* but the word is never abbreviated.

Messrs.—The French word *Messieurs* is contracted into *Messrs.* It means *Sirs* or *Gentlemen,* and, being a plural, it really pluralizes the contraction *Mr.,* and is used before the names of firms. Its office is so solely to pluralize, that in addresses we repeat its meaning by using the word *Gentlemen.* Thus,

Messrs. Miller, Smith and Co.
Gentlemen.

Mrs.—This is the contracted form of *Mistress,* which is the feminine of *Mister* or *Master.* As the original of these words implied authority, motherly or otherwise, usage has limited *Mrs.* to the designation of a married woman only. Formerly it was a prefix to either married or single women, the same as *Mr.* is for married or single men. It is not unusual to use it in connection with the husband's name, as *Mrs. Robert S. Yerkes,* and even with a husband's title, as *Mrs. Dr. Marshall.* The first form may be cultivated with propriety, but the last would seem to be an effort to court notoriety.

Miss.—This is also a contracted form of *Mistress,* which word, as we have seen, was formerly prefixed to the names of married and unmarried women alike. In the course of time it became limited to unmarried females only, and that even without distinction of age. A little girl is a *Miss.* A young boy is not a *Mr.* but a *Master.* There is much diversity of usage in the application of this title to two or more persons of the same name. Should we say *the Miss Browns* or *the Misses Brown?* Both are correct.

Madam.—This is the English form of the French word *Madame,* a gentlewoman, an appellation or courteous form of address given to an elderly or married lady. It is much used in letter salutations, and corresponds with *Sir* in addressing males. In France *Madame* is used in addressing all married women. The English plural of *Madam* is Madams, or the French plural *Mesdames,* which last, when contracted, becomes *Mmes.* This contraction is also used for the plural of *Mistress* (Mrs.), especially when the coterie addressed consists of mixed married and single women. But it is well to bear in mind that use of French forms of address, and contractions thereof, has a flavor of affectation about it, and that the English salutation, *Ladies,* is always a tasteful substitute.

P. S.—The abbreviation of the word *Postscript* is *P. S.,* which letters are used in correspondence at the beginning of such additional matter as the writer may wish to supply—sometimes omitted matter, sometimes an afterthought.

N. B.—These letters are the initials of the Latin words *Nota Bene,* which mean *note well.* They introduce a second postscript to a letter, and emphasize its importance.

Via.—This is not a contraction, but is the Latin word *via,* way; which, when used in the ablative case, is translated *by way of.* It is much used in business correspondence, as to send goods *via* Queenstown to London.

R. S. V. P.—These are the initial letters of the French request *respondez s'il vous plait,* which signifies *answer if you please.* They are used chiefly on notes or cards of invitation, when a prompt response is desirable. Their proper location is at the lower left-hand corner of the note or card.

Sir.—This word, though wholly Anglicized, is a contraction of the Latin word *senior,* meaning *elder.* It is a respectful title much used in salutations, but not as a prefix to the name, like *Mr.* It is written beneath the name, and by itself if formality is desired, as in official letters. Where formality is not an object, *Dear Sir,* or *My dear Sir* become proper. It can be used in the plural, as *Sirs* or *Dear Sirs,* but the word *Gentlemen* affords a good substitute. When *Sir* is used as an honorary title and not merely out of respect, it precedes the name, as *Sir William Hamilton, Bart.;* but this does not occur in the United States.

Hon.—This is the contracted form of the word *Honorable.* In England it is a title of quality conferred by usage upon the younger children of earls, viscounts and barons. In the United States it is merely a title of courtesy, bestowed on those who hold, or have held, any of the higher public offices, as governors, senators, judges, members of Congress, mayors, etc. There is a foolish tendency to extend its use to functionaries of almost any grade. Its use is not by any means confined to persons, but extends to public bodies when addressed collectively, as *the Honorable Senate, the Honorable Gentlemen.* In deliberative bodies, like the Senate and House of Representatives, members address one another as *Honorable gentleman.* Lawyers address a judge as *Your Honor.*

Dr.—This is the contraction for *Doctor.* As an academic title it means a man so well versed in his department as to be able to teach it, the origin of the word being the Latin *docere,* to teach. Diplomas conferring academic titles confer honorary titles only. The simple contraction *Dr.,* without anything else, commonly implies a man skilled in medicine, though it is not infrequently used in addressing D. D.'s and LL. D.'s.

M. D.—This contraction of *Medical Doctor* is more specific than simple *Dr.* It limits the title to the profession, and is really the one that ought to be used in correspondence. It always follows the name, and excludes the title *Dr.* before the name. We cannot write with propriety *Dr. John Swift, M. D.*, but it should be either *Dr. John Swift,* or *John Swift, M. D.*

Rev.—This, or *Revd.*, is the contraction for *Reverend.* It is a title of respect commonly applied to ecclesiastics. An ordinary clergyman is styled *Reverend;* a dean a *Very Reverend,* a bishop a *Right Reverend,* an archbishop *the Most Reverend.* All of them precede the name, and do not necessarily preclude the use of such academic titles as *D. D.* or *LL. D.* after the name.

D. D.—These are the initials of the Latin words *Divinitatis Doctor,* Doctor of Divinity. It is an academic title conferred on the graduates of theological seminaries, and its place is after the name. It may be used even though a *Rev.* has been placed before the name. But it should be borne in mind that duplication of titles should not be carried to excess.

LL. D.—These letters stand for the Latin *Legum Doctor,* Doctor of Laws, which is purely an honorary title conferred at the pleasure of universities and colleges upon distinguished individuals, benefactors and favorites. The initial *L* of *Legum* is doubled in order to show that a plural is signified. Its place is after the name, though it does not preclude the use of *Rev.* or *Hon.* before the name, yet it does of *Mr.*

LL. B.—These are the initials of the Latin *Legum Baccalaureus,* Bachelor of Laws, the *L* being doubled to signify a plural. It is often used with the letters reversed, *B. LL.,* and quite as often with two letters only, as *B. L.* It is an academic title conferred by diploma on graduates of law schools. Its place is after the name.

A. M.—These are the initials of the Latin *Artium Magister,* Master of Arts. It is an academic title, usually conferred on college graduates after the lapse of three years. It may be written *M. A.* Its place is after the name, and it should preclude the use of a title before the name.

A. B.—These are the initials of the Latin *Artium Baccalaureus,* Bachelor of Arts, an academic title conferred by diploma when a student graduates from college. Its place is after the name, and it precludes such a title as *Mr.* before the name. The letters are frequently written in the reversed order, as *B. A.*

Prof.—This is an abbreviation of the word *Professor.* The use of this as a title is common when one is engaged in teaching any branch of learning. Otherwise it signifies nothing. It is more a convenience than a badge of respect. It is used before the name and does not necessarily preclude a title after the name, though, as already observed, good taste requires that titles be used sparingly.

Use of Titles.

Division.—As may be inferred from what has already been said under the head of *Contractions,* titles are divisible into three classes, those which convey respect, those which are professional, and those which appertain to the army and navy. Examples of the first, in their contracted form, are *Mr., Mrs., Miss, Esq.,* etc. Examples of the second are, *Dr., M. D., Prof.,* etc. Examples of the third are *Gen., Com., Capt.,* etc.

Application.—A general rule for applying titles is not to use two of the same class. It would be wrong to salute or address a person as *Mr. James Penrose, Esq.* If *Mr.* is used, the *Esq.* must be omitted, and *vice versa.* A vast majority of titles of respect precede the name. Professional titles may be used either before or after the name, thus: *Dr. John Deaver* or *John Deaver, M. D.* Where a person is entitled to two titles the highest should be used. Military titles generally precede the name.

Illustrations.—There can be no hard and fast rules laid down in this country for the use of every title, as in the countries of Europe, but subscription to the following, by way of illustration, will keep a correspondent in the line of good taste, whether in salutations or superscriptions. The President of the United States, the Governor of a State, or a Minister or Ambassador to a foreign country may be addressed thus: *His Excellency, Theodore Roosevelt; His Excellency —— ——.* But it would not be in bad taste to say *Hon. Theodore Roosevelt, President.*

However, the title *Hon.* is generally reserved for officials below the grade of President, governor or ambassador, such as the Vice-President, Senators, Representatives, and heads of departments, State representatives, judges, etc. Thus, *Hon. George F. Hoar.* A Doctor of Divinity may take his double title, as *Rev. George Jones, D. D.,* or *Rev. Dr. George Jones.* So, of Doctor of Laws, *Rev. George Jones, LL. D.* The minister not bearing a double title is addressed as *Rev. George Jones;* a physician or surgeon as *Dr. John Lockhart* or *John Lockhart, M. D.;* a teacher as *Prof. Francis A. March;* a lawyer as *John Johnson,* *Esq.;* an unprofessional man as *Mr. William Smith.*

Military titles, such as General, Colonel, Major, Captain, Lieutenant, etc., are used either in full or in the contracted form of Gen., Col., Maj., Capt., Lieut. Thus, we may say, *Nelson A. Miles, Lieutenant-General* or *Lieut.-Gen. Nelson A. Miles; —— Major-General,* or *Maj.-Gen. ——,* etc. For officers of the higher grades, the use of uncontracted titles is preferable, but *Col. Abner Shenk* is the better. The same is true of naval officers.

Much confusion exists as to the proper use of titles where a man and his wife are subjects of polite letters or invitations. The following salutations and superscriptions are in good taste: *His Excellency and Mrs. Theodore Roosevelt; Governor and Mrs. William A. Stone; Hon. and Mrs. Marcus A. Hanna; Rev. Dr. and Mrs. Henry Ward Beecher; Prof. and Mrs. Francis A. March; Mr. and Mrs. William Spaulding.*

The Pope is addressed as *His Holiness;* a Cardinal as *His Eminence;* an Archbishop as *Most Rev.;* a Vicar-General as *Very Rev.;* a Priest as *Rev.;* a lady superintendent of a convent or hospital as *Sister Superior.*

Royalty is addressed as *To the King's* (*or Queen's*) *Most Excellent Majesty;* King prospective as *To His Royal Highness;* a Duke as *To His Grace;* a Marquis as *To the Most Noble;* an Earl as *To the Right Honorable;* a Baron as *To the Honorable.* Wives of nobility are addressed with the same titles as their husbands, as *To Her Grace the Duchess of Nottingham.*

Business-Letter Forms.

Notice of Shipment.

PHILADELPHIA, March 3, 1905.

MESSRS. RANKIN, SMITH & Co.,
Chicago, Ill.

Gentlemen: We have shipped you this day by express, *via* the N. Y. Central R. R., 300 copies of Whalen's Philosophy. Owing to unusual demands, the last edition of the work was quickly exhausted, and your order delayed for the present edition, which was received only this morning from the bindery. Thanking you for your generous patronage, we are

Yours very respectfully,
HISTORICAL PUBLISHING CO.

Letter Ordering Dry Goods.

APRIL 1, 1905.

MR. JOHN WANAMAKER,
Philadelphia, Pa.

Dear Sir: Enclosed find Post Office order for $16, for which please send me, by Adams Express, the following goods:

6 yds. calico, brown, small figured (25c.)	$1.50
4 linen handkerchiefs (50c.)	2.00
4 prs. ladies' cotton hose, No. 9 (50c.)	2.00
2 Lancaster table spreads ($2.50)	5.00
2 prs. kid gloves, black ($2.75)	5.50
	$16.00

Direct to

MRS. JANE B. HAYS,
Altoona, Pa.

To Delinquent Customer.

PHILADELPHIA, April 9, 1905.

MR. HENRY L. GEORGE,
Coatesville, Pa.

Dear Sir: We regret to inform you that, in casting up your account, we find you very much behind with your payments. Be kind enough to give us a reason for this, and permit us to urge that you make a settlement in full at the earliest date possible.

Respectfully yours,
KEATS, JORDAN & CO.

Reply to the Above.

COATESVILLE, PA., April 12, 1905.

MESSRS. KEATS, JORDAN & CO.,
Philadelphia, Pa.

Gentlemen: I am in receipt of your letter of the 9th inst., relating to my account with you. The reason I have been so slow in making payments is that my collections have been tardy for the past few weeks. I hope they will soon improve. I enclose you my check for part of the amount, and will remit the balance in a few days.

Yours very truly,
HENRY L. GEORGE.

From a Beginner in Business.

PEORIA, ILL., January 10, 1905.

MESSRS. OSGOOD, MURRAY & CO.,
Chicago, Ill.

Gentlemen: I recently commenced business here for myself, and with every prospect of success. It would please me much to open an account with your house, and, I hope, for our mutual advantage. Should you thus favor me, please fill the enclosed order on your best terms. On receipt of the goods and invoice, I will promptly remit by sight draft on the First National Bank of this place. This being our first transaction, I refer you to Messrs. King, Welsh & Co., of your city, with whom I was lately employed.

Respectfully yours,
JAMES R. PENNELL.

Reply to the Above.

CHICAGO, ILL., January 12, 1905.

MR. JAMES R. PENNELL,
Peoria, Ill.

Dear Sir: Your favor of 10th inst. at hand asking a credit and enclosing order. In reply we would say that your reference is satisfactory, and that we have no hesitation in opening an account with you. We have shipped you this day by freight the enclosed invoice of goods amounting to $1,000, subject to a discount of 5 per cent. for cash.

Yours respectfully,
Osgood, Murray & Co.

Letter of Inquiry.

Lancaster, Pa., May 6, 1905.

Mr. John C. Carter,
Ephrata, Pa.

Dear Sir: Our firm desires to establish a branch hardware store in your town. We take advantage of our acquaintance with you to ask that you send us the number of such stores now there, and such other information as you think likely to help or hinder our project. An early reply is solicited.

Greatly oblige
Yours very truly,
Keen, Ralston & Co.

Reply to the Above.

Ephrata, May 12, 1905.

Messrs. Keen, Ralston & Co.,
Lancaster, Pa.

Gentlemen: I am in receipt of your favor of 6th inst., inquiring. In reply I would say that there is but one hardware store in our town. It is small and not well stocked. I think a new and well-conducted enterprise in that line would prove a success here. Have looked around and find an empty building suited for the business on a prominent corner and at a reasonable rent. I trust you will take advantage of the situation, and meet with success.

Respectfully yours,
John C. Carter.

Complaint of Error.

Wheeling, W. Va., June 23, 1905.

Messrs. R. S. Morgan & Co.,
Philadelphia, Pa.

Gentlemen: I am in receipt of your bill for goods shipped, and upon examination I find that you have charged me with items which I never ordered nor received, as follows:—

1 doz. pr. cotton hose	$2.00
20 yds. linen	8.00
½ doz. handkerchiefs	1.50
	$11.50

I herewith return the bill for correction.

Yours very truly,
Ellen S. Sample.

Answer to Above.

Philadelphia, Pa., June 25, 1905.

Mrs. Ellen S. Sample,
Wheeling, W. Va.

Dear Madam: Yours of the 23d inst., with bill enclosure, at hand. The error occurred through clerical carelessness, greatly to our annoyance. We regret exceedingly that you were put to so much trouble. Find a corrected bill enclosed. Accept our apologies for the error.

Very truly yours,
R. S. Morgan & Co.

Letter to an Attorney.

Washington, D. C., Nov. 6, 1905.

George O. Smythe, Esq.,
Philadelphia, Pa.

Dear Sir: I find myself unable to meet you at the time you set, to consult with you respecting the settlement of my husband's estate. The distance is too great and my health is not good. I have, therefore, this day given a Power of Attorney to my old friend, Joseph K. Richards, of your city, whom you know, investing him with full authority to act for me. Please consult with him, and accept his judgment as though it were my own.

Yours very respectfully,
Josephine R. Mickey.
Room 17, The Normandy.

Request to Purchase.

Columbia, Pa., May 9, 1905.

Dear Margaret:

May I draw upon your kindness by asking you to do a little shopping for me? My excuse for troubling you is that two of my children are ill and I cannot leave them to make the trip to the city. Find enclosed a memorandum of the articles I need and a postal-order for ten dollars. I trust this will find you all well. With best regards, I am

Your sincere friend,
Mary L. Murray.

To Mrs. Margaret Hopkins,
2308 N. Thirteenth Street,
Philadelphia, Pa.

Reply to Above.

2308 North Thirteenth Street,
Philadelphia, Pa.
May 12, 1905.

My dear Mary:

It grieves me much to hear of the illness of your children. I trust they will soon be restored to health. Instead of being a trouble to me, I most cheerfully complied with your request, and have ordered the articles purchased to be sent to you by mail. I hope they will arrive safely and that you will be pleased with them. Give my love to the dear children. With kindest regards,

I am yours sincerely,
Margaret Hopkins.

To Mrs. Mary L. Murray,
Columbia, Pa.

Recommendation 1.

Philadelphia, Pa., June 6, 1905.

To Whom It May Concern:

This letter introduces Mr. John M. Rodgers, who has been in our employ for the past seventeen years, and has risen to the post of superintendent. We have always found him sober, industrious and faithful, and we confidently recommend him to any one desiring an assistant in his particular line of business.

Very respectfully,
Green, Jordan & Co.,
Wholesale Woolens,
320 Market Street.

Recommendation 2.

Pittsburg, Pa., October 3, 1905.

President American Steel Co.

Dear Sir: Understanding that Mr. John H. Scott has applied for a clerical position in your company, it gives us pleasure to say of him that he has served us as a clerk for many years, and always with ability and fidelity. We trust his application will receive favorable consideration.

Very respectfully yours,
Johnson & Allison.

Application for Teacher.

Richmond, Va., June 3, 1905.

To Mr. William J. Kennedy,
President of Third Ward School Board.

Dear Sir: Permit me to present my name to your Board as applicant for the position of teacher. I am a graduate of Millersville Normal School and hold a teacher's certificate. For two years I have taught in the Petersburg Grammar School, and have received a testimonial from the Principal, Miss Alice C. Weeks, which I enclose. Hoping my application may meet with favorable consideration, I am

Very respectfully yours,
Mary L. Carson.

Introduction 1.

Bethlehem, March 9, 1905.

Rev. John R. Wright,
Easton, Pa.

Dear Sir: This introduces to you my friend, William H. Kirk, of this place. He goes to Easton to enter business, and as he belongs to your denomination I trust you will feel interested in him, and that your acquaintance may prove mutually pleasant and profitable.

Very truly yours,
Robert L. Johnson.

Introduction 2.

Harrisburg, Pa., June 8, 1905.

Prof. John K. Brooks,
Easton, Pa.

Dear Sir: This introduces to you my son, James E. Work, who desires to enter your college. Please take an interest in his welfare, and help him in the steps toward matriculation. Greatly oblige

Yours very respectfully,
Perry L. Work.

Resignation 1.

Morgantown, October 13, 1905.

To General Superintendent P. R. R.
Philadelphia, Pa.

Dear Sir: I herewith tender you my resignation as manager of the Locomotive Works at this place, the same to take effect on November 1, unless my place is sooner filled.

Very truly yours,
William Lawton.

Resignation 2

Philadelphia, Pa., September 9, 1905.

Messrs. Reeves, Mason & Co.

Gentlemen: Please accept my resignation as superintendent of your purchasing department, the same to take effect immediately.

Respectfully yours,
Jacob R. Clark.

Form of Advertisement, 1.

Board.—A few boarders can be accommodated with a small family in a desirable part of the city. References exchanged. Address Mrs. Emily J. Moore, 488 Girard Avenue.

Form of Advertisement, 2.

For Sale.—A three-story brick dwelling, newly-built, capacious rooms, all modern conveniences, situate at 983 Locust street, Philadelphia, Pa. Price low and terms easy. For particulars call on or address, James D. Madison, residing on the premises.

Form of Advertisement, 3.

For Sale.—A farm of sixty-four acres, ten of which are woodland, the remainder in a high state of cultivation, and well watered. Large stone dwelling, barn and numerous out-houses. Convenient to railway station and market. Price reasonable and terms to suit. For full particulars address James R. Jones, Manheim, Pa.

Answer to an Advertisement, 1.

310 Pine Street, Philadelphia, Pa.
July 10, 1905.

Dear Sir: Having seen in this morning's *Press* the enclosed advertisement [it is always best to cut the advertisement out and paste it on your letter at this point], I hereby make application for the place. I am a graduate of the Peirce Commercial College, well-posted in modern book-keeping, and anxious to engage in clerical work. For testimonials I beg to refer you to Mr. John R. Rodgers, of 966 Pine street, this city. Hoping my application will receive favorable consideration, I am

Yours very respectfully,
Robert N. Warren.

Answer to an Advertisement, 2.

Oglethorpe Academy, Ga.
June 23, 1905.

Mr. George A. Dana.

Dear Sir: In reply to the enclosed advertisement, taken from to-day's *Post*, permit me to offer my services as music-teacher in your family. I am a graduate in music and have taught here for five years, my specialty being the piano and mandolin. For testimonials, I refer you to Professor James Wilson, principal of this institution. Trusting my application may receive favorable consideration, I am,

Yours very respectfully,
Mary A. Conant.

Certificate.

Rochester, N. Y., May 4, 1905.

This certifies that the bearer, Margaret Jones, has done cooking and general housework in my family for the past two years, and to my entire satisfaction. I have always found her attentive, cleanly and honest.

Sarah H. Morgan.

Congratulation, 1.

Milton, Pa., October 7, 1905.

My Dear Friend: It affords me great pleasure to hear of your election to the office of County Superintendent of Common Schools. I am sure you deserve the position and that no one can fill it better. Accept my hearty congratulations.

Yours very truly,
William R. Pinckney.

To Mr. John R. Prince,
Willow Grove, Pa.

Congratulation, 2.

Columbus, O., September 13, 1905.

Dear Jennie: I am in receipt of your welcome letter informing me of your marriage. Accept my congratulations on the event, and my best wishes for a long and happy married life. May God's choicest blessings ever rest on you and yours.

Your loving friend,
Lizzie A. Worth.

To Mrs. Ruth O. Warner,
Dayton, O.

Congratulation, 3.

Atlantic City, N. J., August 9, 1905.

Dear John: I am delighted to learn that you have been promoted to the position of general superintendent of your works. I feel confident you will creditably fill the position and that your promotion will prove fortunate for your company. Accept my hearty congratulations, and may futher success await you.

Yours very truly,
Joseph Renshaw.

John S. Truman.

Apology, 1.

Georgetown, D. C., November 10, 1905.

Mr. John D. Moore,
Baltimore, Md.

Dear Sir: Please accept my apology for failure to meet you at the medical conference in your city on Monday last. I was compelled to remain away by an unexpected professional engagement here which I could not neglect. I will explain further when I next meet you. Trusting that your conference was a success, I am

Yours very truly,
Solomon R. Worth, M. D.

Apology, 2.

Media, Pa., May 6, 1905.

Mr. Richard K. Worth,
Chester, Pa.

Dear Sir: I deeply regret to inform you that, owing to the failure of H. R. Cope & Sons, I will be unable to pay your note, which falls due on Saturday next. Please favor me with an extension of time for two weeks, when I feel certain I shall be in receipt of funds sufficient to pay in full. Greatly oblige,

Yours very truly,
William T. Smith.

Letters of Friendship and Courtesy.

Condolence, 1.

Wilmington, Del., January 3, 1905.

My Dear Friend: I have heard with deep regret of the death of your brother Charles, and I sincerely condole with you on the sad event. If friendly sympathy can afford you consolation, be assured that all who knew him share in your sorrow. Commending you to that consolation which has its source in heaven, I remain

Yours respectfully,
George R. Jordan.

William E. Dill,
Camden, N. J.

Condolence, 2.

Easton, Pa., June 4, 1905.

My Dear William: You have indeed suffered a great affliction in the death of your beloved wife, and I know that this letter will find you in the midst of profound grief. Truly a bright light has gone out of your home, and I sincerely condole with you on your irreparable loss. May you find that consolation which springs from higher sources than the expression of human friendship and sympathy.

Very respectfully yours,
Jacob B. Stiles.

William R. Jones,
Bethlehem, Pa.

Advice.

Youngstown, O., February 19, 1905.

My Dear Alice: Your favor of 20th ult. at hand. I am deeply grieved to know that you intend to visit the home of your affianced without a chaperon, especially for so long a time as you propose. My serious advice to you is to take a lady friend along, who is older than yourself, or who is married. Without such precaution you might become the victim of injurious gossip, leading to possible estrangement between you and your intended.

Your very sincere friend,
Martha Underhill.

Alice M. Murtha,
Pittsburg, Pa.

Asking a Favor.

The Walnuts, January 6, 1905.

My Dear Nana: Will you be kind enough to loan me your copy of Dante for a short time. By so doing you will confer a great favor. Please send by bearer.

Yours sincerely,
Martha Hughes.

Answer to Above.

Arlington, January 6, 1905.

Dear Friend Martha: It gives me great pleasure to comply with your request. I hope you will enjoy the reading and study of the book as much as I have done. I anticipate a visit from you soon.

Your loving friend,
Nana Wilkes.

Giving, 1.

Alexandria, Va., May 20, 1905.

Dear Charlie: I send you to-day a Canadian pony for a birthday present. You will find him very gentle, strong and speedy, and, I trust, a great source of health and enjoyment these spring days. Take good care of him, but do not overfeed him.

Your loving uncle,
John K. Edwards.

Answer to Above.

The Hollies, May 22, 1905.

Dear Uncle: The pony arrived safely to-day. He is a splendid little animal, and I know I shall find him a source of great enjoyment. You could not have chosen a more welcome present. I cannot find words to express my thanks for your thoughtful kindness. It makes my birthday unspeakably happy.

Your loving nephew,
Charles S. Edwards.

Giving, 2.

Charleston, S. C., July 1, 1905.

Mrs. Martha Jones.

Dear Teacher: Please accept this book as a gift from your class in history, and as a token of the esteem in which its members hold you. We have profited much from your careful instruction, and have learned to love you more and more each day.

Very respectfully yours,
Mary D. Moore,
Sarah A. Wiley,
Sada P. Morley.
Com. of Presentation.

Answer to Above.

Charleston, S. C., July 1, 1905.

My Dear Scholars: I accept your beautiful gift with feelings of great pleasure and gratitude. To have secured your love and esteem is worth far more than the price of any time and trouble I may have devoted to your instruction. I shall cherish your gift as one of the dearest of my possessions.

Your loving teacher,
Martha Jones.

To Com. of Presentation.

Daughter to Mother.

Lansdale Female Seminary,
Oxford, Pa., May 3, 1905.

My Dear Mother: Though I have been here but a fortnight, I already feel very much at home. Am in good health and not a bit homesick. Am acquainted with all the teachers and most of the scholars, and find them very nice and kind, The studies are much easier than I had thought for, and I am well up in my class. Dear mother, please send me a postal order for five dollars. I am out of pin money. With much love, I am

Your affectionate daughter,
Sarah P. Hart.

Reply to Above.

Hindsdale, Pa., May 6, 1905.

My Dear Daughter: I am in receipt of your cheerful letter, and am heartily glad that your are so well pleased with your school. Cultivate good companionship, obey your teachers, study assiduously, but not too hard, remain contented, and all will go well with you. I wish you, with all a mother's heart, the best of health and success. Enclosed find the postal-order as requested. Do not be extravagant with your money. We all join in sending love.

Your affectionate mother,
Martha L. Hart.

Husband to Wife.

Knoxville, Tenn., October 4, 1905.

My Dear Margaret: I arrived here to-day and made quite a number of sales. Thus far I have had a pretty successful trip. To-morrow or next day I will start for Chattanooga, from which place I will write you. I had agreeable news from our firm yesterday, to the effect that after this trip I was to become manager of the traveling-sales department and need no longer travel. I know you will be delighted at this, for as the years pass, my long absences from home grow more and more irksome to you, as they do to me. Love and kisses for the two little "tots" and for yourself.

Your loving husband,
Joseph F. Ripley.

Wife to Husband.

Elkton, Md., March 7, 1905.

My Dear John: I reached here in safety at 4 p. m. Father met me at the station and we had a pleasant drive to the farm. I found the folks all well and delighted to see me. I expect a pleasant stay of a week or ten days. How glad I feel to get back to the old homestead and to wander again through the scenes of my childhood. Much as I love you, my children and my home, these old associations are still very dear to me. Father has aged considerably since I last saw him, but still enjoys a fair measure of health. Mother bears her years well. They both regret you did not come with me, and say you must come for me when my visit is over, and make up your mind to stay for a while, even if only for a day. With much love and many kisses, I am

Your devoted wife,
Carrie.

Son to Father.

Lafayette College, Easton, Pa.
January 9, 1905.

Dear Father: I hereby acknowledge the receipt of your check, and thank you very much for your kindness. I have passed through a pleasant session, and feel now as if I were pretty well acquainted with professors, students and college ways. To-morrow our examinations begin. Thought of the ordeal makes me a little nervous, but I trust all will come out right. I will inform you of the result as soon as the ordeal is over. Give my love to dear mother and sister, and share in it yourself. Hoping to hear from you soon, I am

Your affectionate son,
Marcus O. Johnson.

Description.

WASHINGTON, D. C., June 10, 1905.

My Dear Father: According to promise, I describe my impressions of this, my first, day's visit to the National Capital. I was surprised at the extent and grandeur of the Capitol building. How stately the great dome rises to its immense height, and how grand are the proportions of the richly-decorated rotunda! I visited both houses of Congress, and was much impressed with the manner of carrying on legislative work. My visit to the Congressional Library was delightful and instructive. It is a massive and imposing structure, and said to be the largest, handsomest and best arranged library building in the world. It has forty-five miles of shelving and accommodation for 4,000,000 volumes. It now contains over 1,000,000 volumes, inclusive of pamphlets. The paintings, statuary and woodwork are superbly ornamental and brimful of historic suggestions. I found the plan of the city somewhat puzzling at first, but a little study of it taught me that there was an easily understood system of streets amid the apparent irregularity. To-morrow I expect to visit the White House and the Washington Monument, and will continue my descriptive letters.

Your affectionate son,
JOHN Q. RICHARDSON.

Permission to Call.

379 DIAMOND STREET,
PHILADELPHIA, PA.,
January 12, 1905.

MISS ALICE MORGAN.

Our meeting last evening at the residence of Mrs. Jordan was very pleasing to me; so much so, that I venture this note requesting permission to call on you at your own home. Please pardon the liberty I take. Trusting you will favor me by placing my name on your list of gentlemen callers, I am

Yours very respectfully,
WILLIAM R. MILLARD.

Answer to Above.

973 NORTH BROAD STREET,
PHILADELPHIA, PA.,
January 14, 1905.

MR. WILLIAM R. MILLARD.

Dear Sir: I am in receipt of your note containing request. It will give me great pleasure to have you call at our residence on next Thursday evening, January 16.

Yours truly,
ALICE MORGAN.

Declaration of Love.

WARWICK, VA., January 3, 1905.

Dear Miss Parsons: Ever since our first meeting, some two years ago, I have held you in highest esteem, which has ripened into love so strong that I can no longer withhold confession of it to you. I trust the sentiment may prove mutual, and that I may be favored with the privilege of paying you warmer addresses. Hoping you will regard this with favor, I am

Yours very respectfully,
JAMES K. BAKER.

Answer to Above.

RICHMOND, VA., January 5, 1905.

MR. JAMES K. BAKER.

Dear Sir: I am in receipt of your note making known your love for me. I am glad to say that I reciprocate the sentiment and that it will give me pleasure to have you write or call more frequently.

Yours sincerely,
CLARA A. PARSONS.

Marriage Proposal.

NORRISTOWN, PA., May 9, 1905.

Dear Miss Ellen: I feel that our mutual love warrants me in asking your hand in marriage, and I pray you to look upon my proposition with favor. I have long considered the step I now seek to take, and find that it has become necessary for my future happiness. You need not reply to this by letter, as I will visit your city in a few days and will call on you for an answer.

Yours lovingly,
JAMES P. HEATH.

Marriage Invitation.

Mr. and Mrs. John White
request the pleasure of your presence at the
marriage of their daughter
Eleanor White
to
Mr. David B. Harding
on Monday Evening, April the sixth
at eight o'clock
Second Baptist Church
Harrisburg

At Home
After April Twentieth
197 *Ludlow St.*

Reception Card.

Mr. & Mrs. William Walker

239 Westview Avenue

At Home
Wednesdays during April

At Home Invitation.

Mr. & Mrs. Horatio Gates
At Home
Eight to ten P. M.
Tuesday and Friday, March Third and Sixth
Nineteen Hundred and Three
967 Diamond Street

Party Invitation.

May 6, 1905.

Dear Mary: You are cordially invited to attend a social party at our home on next Thursday evening.

Your friend,
Martha Riley.

R. S. V. P.

The letters R. S. V. P., placed at the lower left-hand corner of a note or card of invitation, and representing the initials of the French words, "Respondez s'il vous plait"—answer if you please—are notice that a prompt reply is expected, though courtesy requires that a prompt answer be given always to a note of invitation. If you wish to escape the show of affectation sometimes implied by the use of the initials R. S. V. P., you should use the words, "An answer will greatly oblige." Invitations sent to dwellers near you are usually delivered by messenger. If no answer to an invitation be requested, and you send none, the inference is that you accept.

VISITING CARDS.—These are of great variety. Some of the conventional forms would be, *Mrs. George S. Watson;* or *Mrs. Jane K. Wright, 2407 Fulton Street;* or *Mr. William K. Vanderbilt;* or *Miss Clara K. Buckley;* or *Clara K. Buckley;* or *The Misses Robertson.* It is always a convenience and an insurance of certainty to insert the street number on a visiting card.

Hints on Grammar and Composition

Grammar.—Grammar considers and examines language from its smallest parts—its letters, words and sentences—up to its most complex organizations. The grammar of letters is called Orthography, which means literally correct writing. The grammar of words is called Etymology, which means literally a true account of words. The grammar of sentences is called Syntax, which means an account of the building of sentences. The grammar of poetry is called Prosody, which means measurement of verse. It is not within the range of these hints to treat of grammar and composition in their various details, but rather to suggest some of the commoner errors which mar ordinary speech and writing, which are ever occurring to annoy and distress, and to present such rules of avoidance and methods of correction, as, with a little attention on the part of anyone, will result in a fairly correct grammatical usage.

Special Prepositions.—Perhaps the most frequent and annoying errors in common speech and writing are those made in the use of the special prepositions. The following list embraces those in connection with which errors are most common, the preposition in italics being the correct one:

Absolve *from.*
Abhorrence *for.*
Accord *with.*
Acquit *of.*
Affinity *between.*
Adapted *to* (intent).
Adapted *for* (by nature).
Agree *with* (a person).
Agree *to* (a proposition).
Angry *with.*
Bestow *upon.*
Change *for* (a thing).
Change *with* (person).
Change *of* (apparel).
Confer *on* (favor).
Confer *with* (talk).
Confide *in* (trust).
Confide *to* (give to).
Conform *to.*
Conformity *with.*
Comply *with.*
Convenient *to* (person).
Convenient *for* (purpose).
Conversant *with.*
Correspond *with* (one).
Correspond *to* (a thing).
Dependent *on.*
Derogatory *to.*
Differ *from* (opinion).
Differ *with* (person).
Different *from.*
Disappointed *of* (hopes).
Disappointed *in* (what you have).
Dissent *from.*
Exception *from* (a rule).
Exception *to* (statement).
Followed *by.*
Glad *of* (possession).
Glad *at* (the news).
Independent *of.*
Involve *in.*
Martyr *for* (a cause).
Martyr *to* (disease).
Necessity *for.*
Need *of* (bread).
Need *for* (a thing).
Part *from* (one).
Part *with* (thing).
Profit *by.*
Reconcile *to* (person).
Reconcile *with* (statement)
Taste *of* (food).
Taste *for* (reading).
Thirst *for* (water).
Thirst *after* (knowledge).

The tendency to use needless prepositions should be studiously corrected; as, "In what place was he found in?" for "In what place was he found?" "Where am I at?" for "Where am I?"

Plurals.—The plurals of nouns are a source of infinite trouble to even the best writers and speakers. The commonest plural is formed by adding *s* or *es;* as, box, *boxes;* gas, *gases.* Nouns ending in *f* change the sharp *f* into *v* in the plural; as, beef, *beeves.* But there are many exceptions, as roof, *roofs;* dwarf, *dwarfs,* etc. A comparatively new usage as to the plural of nouns ending in *y* has the sanction of modern grammarians. It runs thus:

(*a*) When the *y* has a vowel before it, it is not changed in the plural; as, key, *keys;* money, *moneys;* valley, *valleys.*

(*b*) *Y,* with a consonant before it, is change into *ie* when *s* is added for a plural; as, *lady,* ladies; *ruby,* rubies.

Other Plurals.—(*a*) There is a class of plurals formed by adding *en* or *ne;* as, ox, *oxen;* child, *children;* cow, *kine.*

(*b*) Another class is formed by changing the vowel of the noun, as man, *men;* tooth, *teeth;* mouse, *mice.*

(*c*) Several nouns have two plural forms, with different meanings; as, brothers (relations), brethren (of a sect); cloths (kind of cloth); clothes (apparel).

(*d*) Many plurals are the same as the singular, as deer, sheep, trout, etc.

(*e*) Names of numbers, weights, measures, etc., are not put in the plural form, as five pound, two hundredweight, three fathom, troop of horse, seven gross of pens, etc.

(*f*) Many plural forms are treated as singular, as odds, amends, gallows, etc.

(*g*) Many names of things consisting of two parts are, from the nature of the case, used only in the plural, as lungs, scissors, pincers, spectacles, tongs, etc. The same is true of names of things taken in the mass, as oats, ashes, entrails, measles, molasses, etc.

(*h*) As a rule, foreign words, when not fully naturalized in English, retain their foreign plurals; as, datum, *data;* genus, *genera;* bandit, *banditti.*

(*i*) Compound words attach the plural to the leading or stress word, especially if it be a noun; as, sons-in-law, lookers-on, attorney-generals, major-generals, spoonfuls, Knights-Templar, etc.

Possessive Case.—In both the singular and plural of nouns, the possessive case is formed by adding an apostrophe (') and an *s;* as, *John's* coat; *children's* playground. But when the plural ends in an *s,* only the apostrophe is added, and that after the *s;* as, *horses'* hoofs are hard; *birds'* wings are beautiful.

Collectives.—Collective nouns take singular verbs when the idea of unity is prominent; as, the army *was* defeated; the crowd *was* large; the committee *begs* leave; the news *is* good. On the contrary, if the idea of plurality be conspicuous in a collective noun, the verb must be in the plural; as, the public *are* invited.

Pronouns.—Pronouns are a fruitful source of mistakes in both conversation and writing. Do not say, between you and *I,* but you and *me.* For I am taller than *him,* say, than *he.* For let you and *I* go, say, *me* go. He is no better than *me,* say *I.* For *her* and her son, say *she.* For it was not *him,* say *he. Us* girls go to school, say *we* girls. *Who* did he strike, say *whom.* Was it *them,* say *they.*

For the little time it takes, it would be well for every one to study thoroughly the inflection of pronouns, so as to avoid such errors as the above, and others akin to them.

Adjectives.—When two things are compared, it is a common error to use the superlative instead of the comparative degree. We should not say, the *best* of the two, but the *better* of the two. When more than two things are compared, *best* becomes proper; as, *best* of the three; *best* boy in school. Never use double comparatives; as, *more taller* than he, should read *taller* than he. Never use double superlatives; as, *most pleasantest* way, for *pleasanter* or *most pleasant.*

Negatives.—The misuse of negative words is a frequent source of error. He *hadn't no hat,* is equivalent to saying, he had a hat; it should read, he *had no* hat. For she was *not* at school, I *don't* think; say, I *think.* Remember that two negatives are equivalent to an affirmative.

Verbs.—Plural subjects must be followed by plural verbs. You must not say, we *was,* but we *were;* nor you *was,* for you *were;* nor they *is,* for they *are;* nor they *has,* for they *have;* nor men *is,* for men *are;* nor boys *is,* for boys *are.* As to verbs in general, those which are irregular give rise to many errors, and we frequently hear such expressions as these: Has *went,* for has *gone;* have *came,* for have *come;* have *sang,* for have *sung;* was *drove,* for was *driven;* have *began,* for have *begun;* was *froze,* for was *frozen;* was *throwed,* for was *thrown;* I *done,* for I *did;* I *seen,* for I *saw,* etc. These instances could be greatly multiplied, and such errors should be carefully avoided, as they are so gross as to be almost vulgar.

Particular attention should also be paid to the uses of the verbs *shall* and *will.* We *will* go, means that we are *willing* to go. We *shall* go, means we have decided to go. Some grammars lay this down as a proper rule to observe with respect to *will* and *shall: Will* in the first person expresses determination; in the second and third persons, only futurity. *Shall* in the first person expresses simple futurity; in the second and third persons, authority.

Other Common Errors.—*Awful* pretty, for *very* pretty; looked *beautifully,* for looked *beautiful;* not *as* I know, for not *that* I know; *between* three, for *among* tree; *brakesman,* for *brakeman;* a *good* deal, for a *great* deal. I *disremember,* for I *forget;* he *don't* sing, for he *doesn't* sing; equally *as* well, for *equally* well; I *fixed* it, for I *arranged* it, or *prepared* it; it looks *good,* for it looks *well;* I have *got* a dollar, for I *have* a dollar; a *new pair* of boots, for *pair of new* boots; *administered* a blow, for *dealt* a blow; I am *afraid* it will snow, for I *fear* it will snow; *all over* the land, for *over all* the land; try *and* go, for try *to* go; otherwise *but,* for otherwise *than; real* good, for *really* good; returned *back,* for *returned; settle* the bill, for *pay* the bill; *so* long journey, for *such* long journey; *some* better, for *somewhat* better; *stopping* at a hotel, for *staying* at a hotel; *those* kind, for *that* kind; *try* an experiment, for *make* an experiment; *widow woman,* for *widow;* two-*years*-old, for two-*year*-old.

Composition.—Composition is the art of putting sentences together. Every one, in writing or speaking, makes sentences, but these sentences may be neat or they may be clumsy—pleasant to hear or read, or dull and heavy. The manner in which we put our sentences together is called style. That style may be good or bad, feeble or vigorous, clear or obscure. It is by study of style that we are enabled to give clear, forcible and graceful expression of our thoughts. Three important elements enter into good composition: (1), clear thinking; (2), reading the best writers; (3), frequent practice in writing, and the careful correcting and polishing of what is written. But though reading and practice are the only means of acquiring a good style, there are both general and special directions which will prove useful to beginners.

Professor Meiklejohn, in his work upon the English language, gives a very excellent set of such directions, from which we quote:

The Subject.—"We must know the subject fully about which we are going to write. Draw upon a piece of paper a short skeleton of what you are going to write about. But such an outline should not be allowed to fetter the writer, if, in the course of actual composition, he finds any reason for deviating from his original plan. Says Cobbett, 'Sit down to write what you have thought, and not to think what you shall write.'"

Pure English.—Do not use obsolete or old-fashioned words, such as *erst, peradventure, holden, vouchsafe, methinks,* etc. Avoid slang expressions, such as *awfully, jolly, rot, bosh, smell a rat, see with half an eye,* etc. Avoid the use of foreign words and phrases, such as *confrere, raison-d'être, amour propre, congé,* etc. As between words of the same meaning of Latin and Saxon origin always choose the latter. Get the right word in the right place. "The *veracity* of the statement was questioned." Here *veracity* is not the right word, as it applies to a person. The right word is *accuracy.* A good way to acquire accurate English is to make a collection of synonyms and carefully compare their meanings. A Roman writer says, "Care should be taken, not that the reader may understand if he will, but that he shall understand whether he will or not." Simplicity is a fine art in composition. It teaches us to avoid too learned words, and roundabout ways of mentioning persons and things. As instances, *vituperation* should not be used for *abuse;* nor *commence* for *begin;* nor *initiate* for *commence.* "Swan of Avon" is a stale and hackneyed phrase for Shakespeare, and the "Great Lexicographer," for Dr. Johnson. Brevity enjoins the need of expressing meaning in as few words as possible. Pope says:

> "Words are like leaves; and where they most abound,
> Much fruit of sense beneath is rarely found."

Special Cautions.—Avoid tautology. "It was founded on the *entire* monopoly of the *whole* trade." In this sentence both *entire* and *whole* are unnecessary, for monopoly means entire possession, or possession of the whole.

Place the adverb as near the word it modifies as you can. "He *not only* found her employed but pleased." In this sentence *not only* belongs to employed, and should immediately precede it.

Avoid circumlocution. "The Queen, on reaching Perth, partook of breakfast," should be written, "On reaching Perth, the Queen breakfasted."

Use of such words of exaggeration as *unprecedented, most extraordinary, incalculable, awfully, stupendous,* etc., should be avoided unless we know they are both true and appropriate. Be careful about the right position of each phrase or clause in your sentence. It was neglect of this caution that led the old lady to write her advertisement as follows: "A piano for sale by a lady about to cross the Channel in an oak case with carved legs."

Punctuation

Importance.—A very important matter in the art of correspondence, or in writing of any kind, is punctuation, or the use of those signs or points which serve to mark off the different parts of sentences, and to show the relation of each part to the organic whole.

.—Period, or full stop, marks the close of a sentence; as, "This is the period of my ambition." It is also used to mark the end of an abbreviated word; as, inst. for instant; prox. for next; Shak. for Shakespeare.

:—Colon means *limb or member.* It is the point or character used to separate parts of a sentence that are complete in themselves and nearly independent; thus, it serves to introduce a new statement that may be regarded as an afterthought; as, "Study to acquire a habit of accurate expression: no study is more important." It is also used to introduce a catalogue of things; as, "Then follow excellent parables about fame: as that she gathereth, etc." Further, it introduces a formal speech; as, Mr. White rose and said: "Sir, I am sorry, etc." It often takes the place of a conjunction. It is gradually falling into disuse.

;—Semicolon is half a colon. It is the mark employed when, for reasons of sound or sense, two or more simple sentences are thrown into one; or, it indicates a separation between parts or members of a sentence more distinct than that marked by a comma; as, "In the youth of a state, arms do flourish; in the middle age of a state, learning; in the declining age of a state, mechanical arts and merchandise."—BACON.

,—Comma means *clause.* It is used to indicate a strong pause either of sense or sound, and it marks the smallest division of a sentence, written or printed. Besides its natural function, it serves several special purposes:—

(*a*) It may be used in place of *and:*—

"We first endure, then pity, then embrace."

(*b*) After an address:—"John, come here."

(*c*) After certain introductory adverbs; as, *however, at length, at last,* etc.

"He came, however, in time to catch the train."

General Rule.—Every writer should bear in mind that it is better to under-punctuate than to over-punctuate. This is especially so when it comes to the use of the comma. The old-fashioned style of punctuating the following sentence was: "There are many pauses, which we ought to make, in reading a sentence aloud, that are not really strong enough to warrant a comma." Such a profuse use of commas is not at all necessary. The sentence should be written or printed thus: "There are many pauses which we ought to make in reading a sentence aloud that are not nearly strong enough to warrant a comma."

——Dash is a mark or line in punctuation denoting a sudden break, stop or transition in a sentence, or an abrupt change in its construction, a long or significant pause, or an unexpected epigrammatic turn of sentiment. It introduces an amplification or explanation; and two dashes are now commonly employed in place of the old parenthesis:

(*a*) "During the voyage a storm came on—such a storm as we had never seen before."

(*b*) "Ribbons, buckles, buttons—any trifle he had worn—were stored as priceless treasures."

?—Interrogation is inquiry, the act of questioning. The interrogation point, mark or sign, indicates that the sentence with which it is connected is a question. Its place is at the end of the question. It is also used to express a doubt, or to mark a query. It is said to have been formed from the first and last letters of the Latin *quæstio,* question, placed one over the other; thus, $\overset{Q}{o}$

!—Exclamation, called also the point of admiration, is the mark or sign employed to denote outcry, emphatic utterance, expression of surprise or wonder. It is gradually falling into disuse. It is said to have been formed from the Latin word *Io,* joy, written vertically; thus, $\overset{I}{o}$

( )—Parenthesis means to put in beside. It is applied to the word, phrase or sentence, by way of comment or explanation, inserted in, or attached to, a sentence which would be grammatically complete without it. It is usually enclosed in curved lines ( ), each of which is a parenthesis; both, parenthesis. Dashes are fast taking the place of parentheses.

[ ]—Brackets or Crotchets are characters used in writing and printing to inclose a reference, explanation or note, or a part to be excluded from a sentence, to indicate an interpolation, rectify a mistake, supply an omission, and for other kindred purposes. The sign is often confused with that of the parenthesis.

'—Apostrophe means the turning away or omitting of a letter. If *called* be contracted into *call'd,* or *never* into *ne'er,* the place of the omitted letter is supplied by an apostrophe, or apostrophic comma. It is also a sign of the possessive case, as a boy's hat. In this use it originally marked the omission of the letter *e.* It finds frequent use in designating the plural of figures and letters; as, two 9's and four d's. Again, it is used in single or double form to indicate a quotation.

-—Hyphen means into one, or together. It is a short dash used to connect the parts of compound words, as in *clear-headed;* also at the end of written or printed lines when part of a word is carried to the next line; again, to separate the syllables of words used in spelling exercises; as, *ex'-cel-lent.*

´—Acute accent. Acute means sharp, high, shrill. Accent, in its secondary sense, is the mark or character used in writing which serves to regulate the pronunciation, as *ac'cent.* There are primary and secondary accents, as *in″ad-mis′si-ble.* Here the primary, or heaviest, accent is on *mis.* Accent is also the mark used to indicate the quality of sound of the vowel marked.

\ —Grave accent. Grave or low accent is the opposite of acute, both in significance and direction of slope. It implies the level tone, or even the negation of accent. It is used mostly to indicate the quality of sound of the vowel marked.

^ —Broad or circumflex accent marks a long and contracted syllable. This is Latin usage. It may be marked either v or ⌒ over the letter or syllable affected.

~ or ⌒ —Circumflex or Tilde, in its Greek significance, indicated a tone raised and then lowered. In Spanish, when placed over an *n* or *l* (*ñ, l̃*) it indicates that the following vowel must be sounded as if preceded by *y.*

‾ Long accent, or Macron (long) is the short, straight, horizontal mark placed over vowels to denote that they have the long sound ; as, *dāme, sēam, fīre, hōme, mūle.*

v or ᵕ Short accent or Breve. A curved or angular mark commonly used to indicate the short quality of a vowel—*ămber, ŏft, strŭck.*

¨—Diæresis, placed over the second of two adjacent vowels, shows that they are to be sounded separately; as, *co-öperate, aërial.*

'—Cedilla means the letter zeta (Z) in Greek. It was formerly written after the letter *c* to give it the sound of *s.* Then it came to be written under the (ç) for the same purpose, but it soon began to lose its form and became a mere arbitrary sign, retaining, however, its original significance, as in façade.

^—Caret means “there is something wanting,” It is a mark used by writers and proofreaders to indicate that something is interlined above, or is inserted in the margin, which belongs in the place marked by the caret.

“ ”—Quotation marks consist of two inverted commas placed at the beginning, and two direct commas at the end, of a passage quoted from an author in his own words. Some writers, when they quote an author, but not in exact words, use but one comma at either end, or a half quotation.

} —Brace means arms stretched out. It is the vertical curved line used to signify that two or more words or lines are to be taken together; thus,

bowl ⎫
bolt ⎭

* * * Ellipsis signifies a leaving out, defect, omission. Ellipsis is really a figure in syntax implying the omission of one or more words from a sentence, which are obviously understood; thus, *the virtue I admire,* for, *the virtue which I admire.* Of course the sign * * * is not used here, but it comes into use to signify an omission of an unimportant part of a quotation.

. .—Leaders serve to carry the eye across the pages of indexes, tables, contents, etc.; thus,

Needle-gun invented....................1856

They are also used as signs of ellipses.

*—Asterisk means a little star. It is used in printing or writing as a reference to a passage or note in the margin or at the bottom of a page, and also to supply the omission of letters or words. It is the first used of the reference marks.

†—Dagger, or obelisk, is so-called from its resemblance to a dagger, or inverted obelisk. It is a mark of reference to a note in the margin or at the bottom of the page, and is the second mark used when more than one are used on a page.

‡—Double dagger is the third reference mark used when there are more than two used on a page.

§—Section mark is the character often used to denote a division of a writing or subdivision of a chapter; a paragraph. It is said by some to have been formed from the initial letters (*ff*) of the Latin words *signum sectionis,* meaning sign of the section; but others say it is a modification of the Greek *P,* initial of *Paragraphos,* paragraph.

||—Parallels—This character, consisting of two parallel vertical lines, is used in writing and printing to call attention to a similarly marked note in the margin or at the foot of the page.

¶—Paragraph is the sign which notes the division of a writing into distinct parts, sections or subdivisions. The writer can avoid the use of the sign by beginning the first sentence of the paragraph on a new line and at more than the usual distance from the left-hand margin. It is but a modification of the Greek *P,* initial of *Paragraphos,* paragraph.

☞—Index, or pointer, is the sign used to direct particular attention to a note or paragraph. It is sometimes called a *fist.*

⁎ or ⁎*⁎—Asterism is the Greek word *asterismos,* a cluster of stars. Like the asterisk, or single *, it is used as a sign to direct attention to a passage, especially when such attention is deemed very particular.

Correct and Easy Penmanship.

How to Teach and Acquire the Art.

PROF. H. A. WARNER.

What Writing Requires.—Writing of whatever kind requires two things, a system and execution. A system may be simple or complex; the execution may be easy or difficult.

Those particular features which go to make up the system, with the means used to transfer it, are the factors of the writing, while the results are the products.

Kinds of Writing.—There are two kinds and many systems of writing being taught to-day. Can we find a kind of writing sound in principle and method, and at the same time best adapted to the needs and requirements of learners, especially those of school age?

The Desideratum.—Speed, legibility, ease of execution, simplicity, unification and neatness are some of the requisites of good business writing. Legibility is, above all other requisites, the desideratum.

Most Legible Writing.—What kind of writing is most legible?

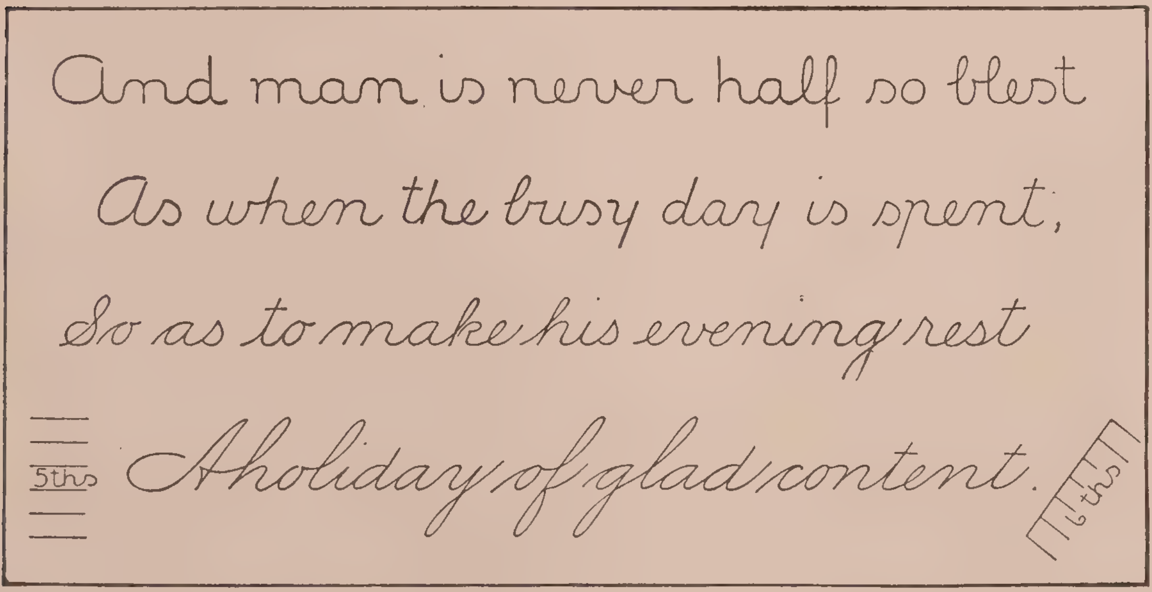

And man is never half so blest
As when the busy day is spent;
So as to make his evening rest
A holiday of glad content.

ILLUSTRATION No. 1.

Illustration No. 1 demonstrates the following facts: (1) The nearer writing approaches the perpendicular the rounder it is, and the rounder it is the more legible it will be. (2) The more the writing slants, the more angular it becomes, and the more angular it is the more illegible will it be, and the more difficult to execute. "Writing which slants but little or none at all is essentially more rounding and less angular than that which slants a great deal."

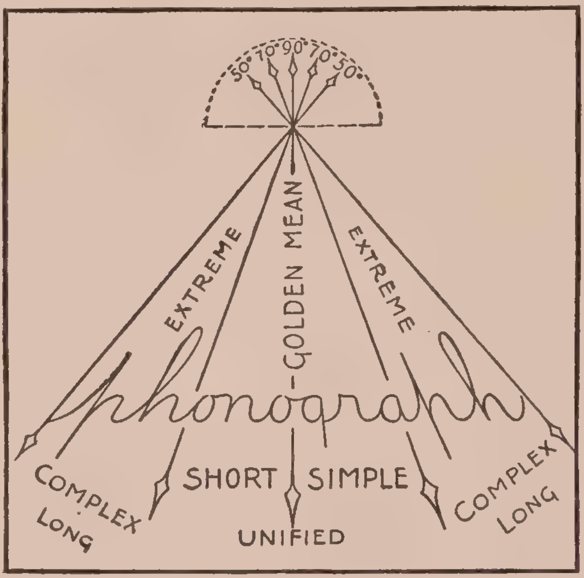


ILLUSTRATION No. 2.

Slants in Writing.—In illustration No. 2 we have two different slants in writing. The outer lines of this illustration are on a slant of fifty degrees, which is an extreme slant, the letters being long and complex; the next two lines are on a slant of seventy degrees, or twenty degrees to the right and left of the perpendicular.

With a slant of not more than twenty degrees to the right or left of the perpendicular the writing will be legible. This proves the fact that slope is not an important factor in writing, only as it affects legibility.

Thus we see, when writing begins to slant more than seventy degrees it increases in length and correspondingly diminishes in distinctness.

"Between extremes true safety lies." Next we have the ninety degree, which is the golden mean.

Simplicity in Writing.—Writing, to be legible, must also be simple, and to obtain the greatest degree of simplicity there must be a unification of the letters. Simplifying the forms, making them as plain as possible, makes them more legible, and a system, to be simple or legible, must eliminate all curls, initial and final lines and as many loops as possible, still retaining legibility.

A system thus simplified would consist largely of straight lines.

Unification.—By unification is meant making as little variation as possible in the length of the letters; that is, the small letters *i, u, w, m, n, o, a, c, e, r, s, v,* and *x* should be made the same height; all letters which are higher should be made twice as high, and all those which extend below the line should extend as far below the line as the small letters are high: pupils will get this proportion.

Spencerian System.—In the Spencerian or similar slope systems the staff is divided into fifths, the small letter *f* being three spaces above and two below the base line, and the small letter *p* two spaces above and one and a half below, giving a variety of lengths to the letters throughout the alphabet, making it necessary to have rulings, giving spaces to teach children to make the forms the correct height or length.

By unification we can do away with this complex ruling, which is a hindrance to ease of execution.

Neatness will be the outgrowth of simplification and unification.

Infallible Guide to Legibility.—We have learned that the nearer writing approaches the perpendicular the more legible it becomes. Unite with this simplification and unification of the letters, and you have an infallible guide to legibility.

Teacher and Pupil.—Before presenting the second part of my subject, a word should be said of the relation of teacher to pupil. The child has feelings, desires, a will and conscience, which are to be developed and guided. This imposes a solemn duty on teachers, who must not only find the avenues to the child's soul, but must stand unflinchingly at, as it were, the wheel of a craft newly launched on the sea of life to guide it during a certain per cent of its voyages. The first questions should be, is the craft seaworthy? If not, how shall it be strengthened?

Forearm Movement.—Not more than fifteen years ago you heard very little about movement in connection with writing. About this time, however, the so-called pure muscular or forearm movement was introduced by some teachers as the only means by which pupils could become good business writers. The system which introduced this method of execution gave a great many exercises to develop movement, and pupils were instructed to write twenty or more words a minute without raising the pen or using the fingers.

Defect of Forearm Movement.—This method of execution has been taught for a number of years, and perhaps is taught in a good many places today, but educators and writing teachers have found that while this kind of practice develops forearm movement, it makes little if any improvement in the writing in general, and that the regular work becomes irregular and carelessly written. Educators and teachers of writing are learning that to obtain the best results in writing, the fingers must be used as well as the forearm, instead of using one movement exclusive of the other. I have spoken of simplification and unification as aids to legibility, but they are as great, if not greater, aids to ease of execution.

Straight Lines and Loops.—You will all agree with me that it is easier to make a straight line than a circle, and it is easier to make a straight line than a Spencerian loop. It is easier to make a number of straight lines alike than an equal number of loops alike; it is easier to let fall a ladder from a vertical position than to raise it to such from a horizontal or oblique position.

Ease of Vertical System.—It is correspondingly easier to teach a beginner a ninety degree system, from which, after he has thoroughly mastered it, he may vary as regards slant, either to the right or left, backward or forward, to suit his individuality, than to teach a pupil to write vertically who has been taught a slanting or oblique system.

The Golden Mean.—I do not believe that a ninety degree, or vertical, system is the system for all.

Writing which slants but little either way if simplified and unified will be legible, and can be easily written; but we find it easier to make simple forms in a perpendicular position; such writing is easier to teach the beginner, it is easier to shift from the perpendicular. The perpendicular is the golden mean, the compromise between the extremes.

With these facts before us it is evident that a ninety degree system should be adopted, taught and learned as largely as possible.

Other Reasons for Vertical System.—But let us see if we cannot obtain more scientific and physiological principles which will help us decide what system of vertical writing to adopt, a system embodying these principles and truths as basic parts.

Lateral Arm Movement.—In the extreme slant systems the loops and other extended letters are long, and require a position and movement which will enable the writer to make these forms rapidly. This is obtained by turning the paper and spreading the elbows on the desk, which enables the writer to use a lateral movement of the arm.

The system of writing is more important than speed. Speed in writing could not be accomplished if there were no system.

The more the system is simplified and unified the easier will be the execution and the greater the speed.

Simplification, unification and perpendicular position should constitute the system taught.

Perception, conception and apperception or motive power causes movement.

Such a system and motive power will produce the greatest ease of execution.

Speed is a product of these three and all are factors of writing the product of which is legibility and neatness.

See illustration No. 3.

Mechanism of Arm.—The ulna joins with the humerus at the elbow, forming a hinge joint, and the forearm is moved by the contraction and relaxation of the biceps, which muscle is attached to the ulna near the elbow, with the forearm and elbow on the desk; and moving the forearm from the elbow as you would move one part of a hinge, we get this lateral movement, which is the only movement that can or was ever intended to be used for making extremely long oblique lines.

The Lateral Movement.—This lateral movement, according to the anatomy of the arm, cannot and never was intended to be used for any style of writing but the slope. The forms of the slanting loops were constructed so as to best suit this lateral movement in execution, and were never intended to be made with any other movement; hence strictly slanting loops were never intended to be made in any other position or direction than the oblique.

The Round Wide Loop.—When I wrote the Spencerian or a similar system, it was very seldom that I made two loops alike, and in rapid business writing you will not find one man in a hundred who writes such a system that does. If it is impossible to make this form of loop rapidly and correctly with the movement best adapted to its form, it is very evident that the straighter up and down you make them the more difficult will be the execution. As the movements of the forearm are caused by the contraction and relaxation of the biceps, it is impossible, with the forearm resting on the desk, to move it in a direct direction, in and out of the sleeve to any great distance. For vertical writing it is therefore much easier and more natural to make a loop which is round or wide, allowing of a rolling or somewhat circular motion, than one whose lines are nearly parallel to a vertical line, and which would require an almost direct movement.

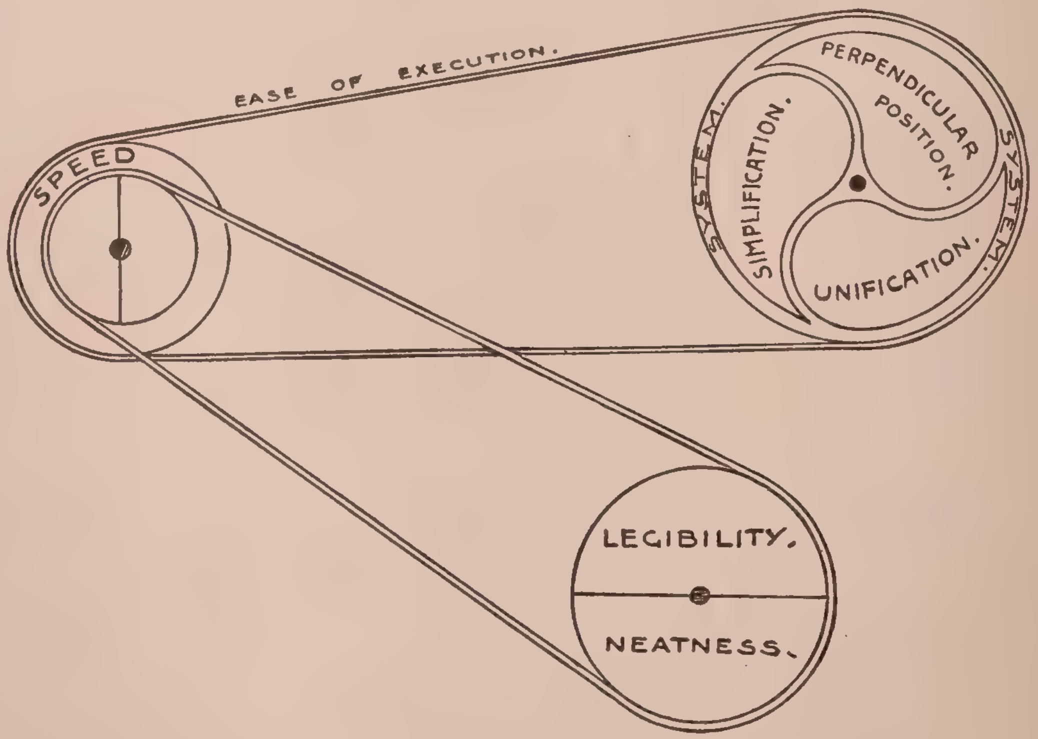


ILLUSTRATION No. 3.

Simplicity of Vertical Loops.—By a close study of the subject it will be found that the alphabet, including the capital and small letters, can be made so as to include but seven extended loops, and for vertical writing that part of the letter which forms the loop should not be angular and narrow, but round and wide.

Production of Movement.—The brain is the motive power of the body, and is only able to produce voluntary action after it has perceived, conceived and properly apperceived the idea. The brain as motive power telegraphs its messages to the different muscular cells, producing action or movement.

Value of Simple Forms.—What progress would a pupil make in solving a problem in interest if he had never learned a multiplication or some other table for computing it? There must be perception, conception and apperception of form first; the pupil must have such a psychological conception of the forms that he knows just how the letters are made. The simpler the forms the easier will be the assimilative process.

Taking Pains.—If it is impossible for a pupil to make a form correctly, and at the same time slowly, will he ever make it any better by writing it fast from the start? Why does the child creep before it can walk, and walk before it can run?

Speed; execution and motive power as factors with any system will not always produce legibility and neatness. A system composed of complex forms, extreme slant and irregularity, with motive power, execution and speed as factors will produce illegibility and slovenliness.

See illustration No. 4.

The Best Method.—A child's first year at school is, perhaps, the most important of its life. He or she is taught the method of word study, language, numbers, drawing, writing, etc. Do the methods interest and delight the child? Word study or vocabulary building may be taught in many ways, but the method which brings the child, or any learner, into actual touch or association with the object which represents the word by writing it on the blackboard, slate or paper in script and by the word as a whole conveying a complete idea to the child, is conceded to be the best method.

Advantage of Vertical Writing.—Vertical writing, such as I have described, is the best system that can be used to teach the child to both read and write in a short time. Why? Had the originators of vertical writing simply straightened up the letters of the slant system, as a great many publishers have done, vertical writing would have received but little, if any, recognition.

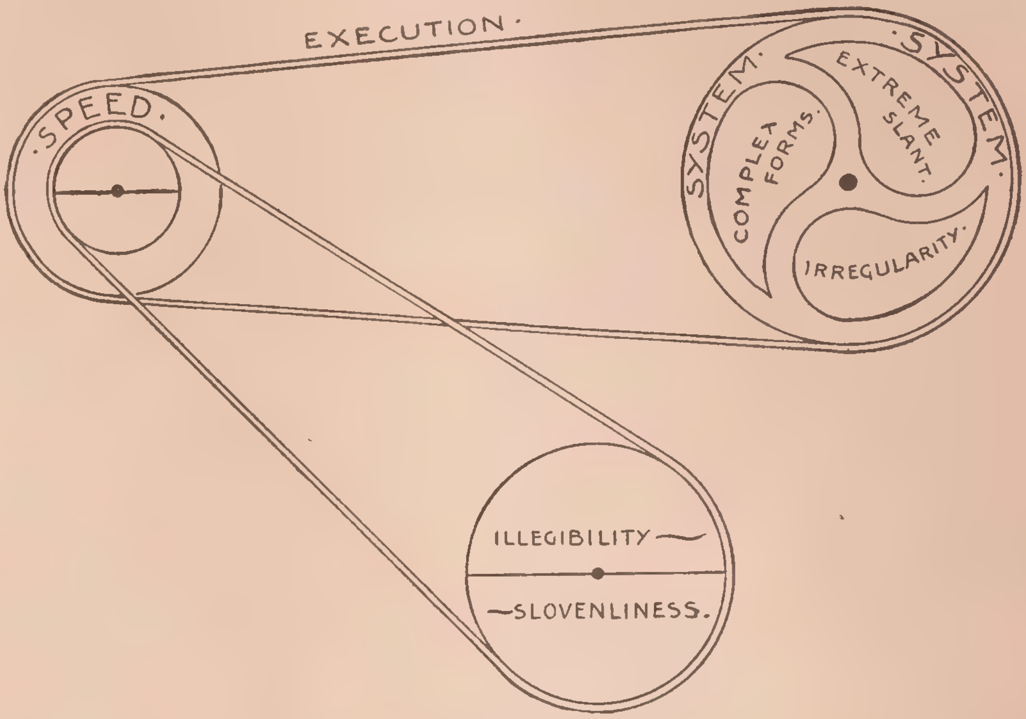


ILLUSTRATION No. 4.

They simplified the letters by making them conform as nearly as possible to the Roman type alphabet, requiring the child to learn but one alphabet for reading and writing.

The difference is so slight that the transition from script to print can be made without extra work.

Writing and Word Acquisition.—Now consider writing in its relation to the above method of vocabulary or word building. Let us take the words in illustration No. 5.

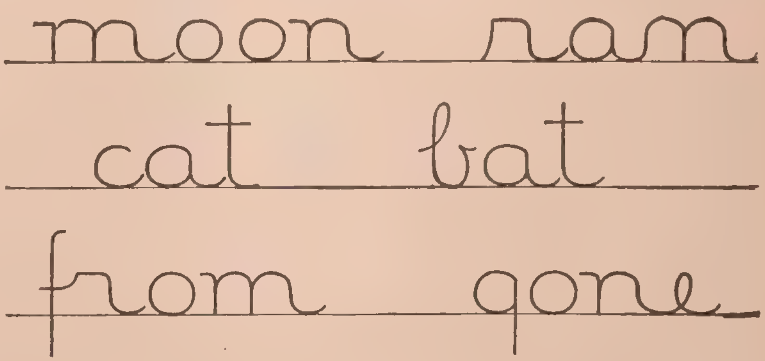


ILLUSTRATION No. 5.

They have been developed, and now comes the time when you wish the pupil to write them. He may have learned words as a whole, and not by analysis. Shall he be taught to write the letters, dividing them into their elements and principles, whereby he gains no joy of having expressed a complete thought? No. Teach him, if possible, to write the word. How can this be done? By writing it so he can see how it is made, and so he can make it by parts, that is, disconnect the letters.

The copies and work on the board or other surface should be large, because it better enables the child to get perception and conception. The child's writing should be large, because it magnifies his mistakes and better enables him to correct them.

Correct Position.—There are only three different lengths used in all the letters of the alphabet, and by a comparison of the letters the child will soon learn the proportions. What are the correct positions for the body, arm, etc., for vertical writing?

In the first place, the body should be erect, with the feet flat on the floor. Every muscle of the arm and hand should be relaxed.

It is easier to move a bar in any given direction, as a lever with the fulcrum at the centre, than to move it when lying on a plane surface. It is likewise easier to write with the arm resting half way between the wrist and the elbow on the edge of the desk than to let the whole forearm rest on the desk. The arm and the hand should be held in the easiest position possible, the elbow should be allowed to drop, and this will naturally throw the wrist and hand upward. The penholder should be held between the thumb and first finger and extend above the knuckle, and the hand should rest on the first joint of the little finger, as shown in illustration No. 6.

Paper and Pen.—In relation to the paper, the penholder will then point in a somewhat east and west direction, and should be turned so the pen is drawn to the right on both points instead of pushing it against the points, as in the slope writing. The paper should be straight on the desk. Some of these rules are not infallible. Teachers and learners must adjust them to the conditions under which they are teaching or learning.

Slate Writing.—It has been shown that the arm should be as straight with the paper as possible. But frequently with younger pupils in schools, the slate is in vogue as a substitute for paper. This is unfortunate, for by use of the slate a learner may form habits from the very start which it may take him years to correct, after he begins the use of paper. The ordinary school slate is generally a double one, about seven-eighths of an inch high, and some of them are nearly as large as the top of the desk from front to back. The child must either arch the wrist over the edge of the slate or place the whole forearm on it. The slate is cold, the pencil adheres to the slate, and the hand must rest; there is no other way. The circumference of the pencil is so small that a cramped position of the hand and fingers is necessary in order to hold the pencil. This is true of slant writing as well as vertical. You can readily see that a child could never take a correct position for vertical writing with a large slate. I have made several measurements, and find the child's arm when in the first year of school is, on an average, about twelve inches from the elbow to tip of second finger, and seven inches from wrist to elbow. Now the arm should rest half way between wrist and elbow, so there would be three and one-half inches over the desk from the place where the arm rests to the wrist; the distance from the wrist to tip of second finger is five inches, but when holding the pen the fingers are turned towards the palm, which takes off about two inches. You can see that the distance then from the rest on the edge of the desk to the point of pencil should be about six and one-half inches. A slate nine inches from front

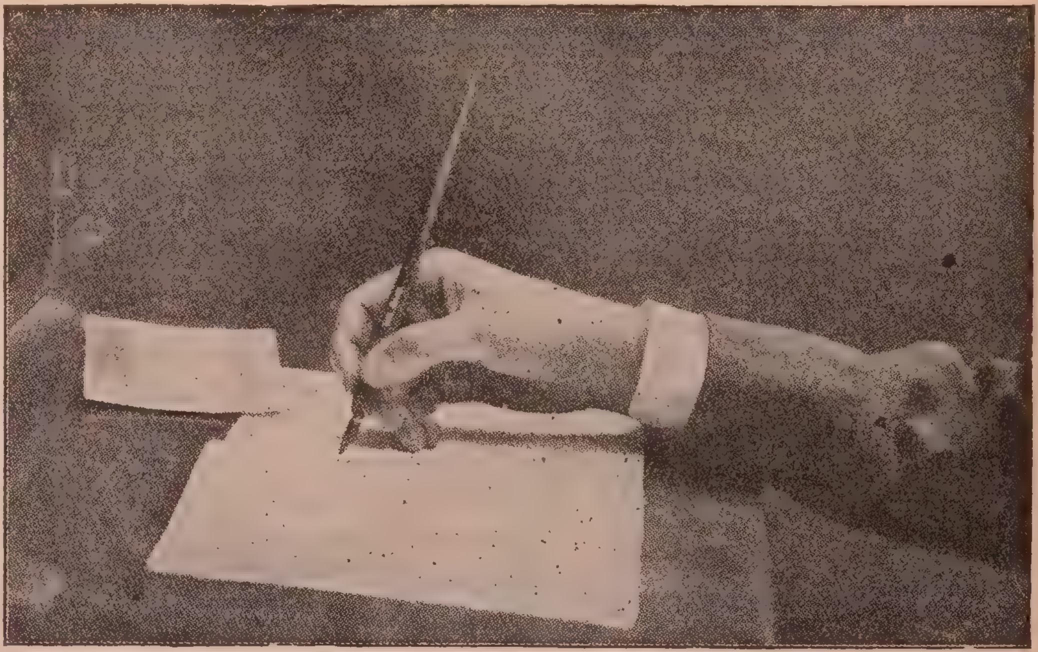


ILLUSTRATION No. 6.

to back would not permit of a correct position at all.

Copy Books.—The vertical copy books for this grade, of the best systems published, have the same fault, the book being eight and one-half inches long. They expect the child to have just as long an arm and be able to do work with a correct position on the same size sheet of paper as a grammar pupil. Illustration No. 7 shows by actual scale about the size the copy book ought to be for this grade in its relation to the desk and arm, to obtain the best results.

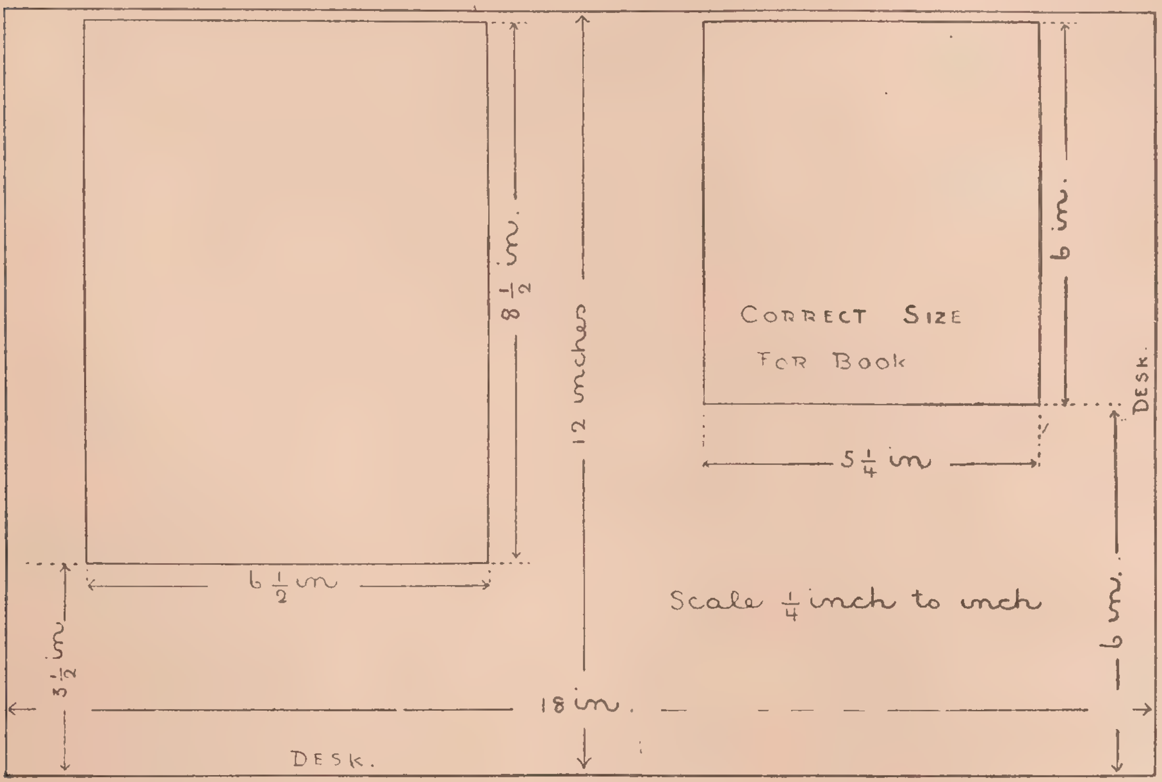


ILLUSTRATION No 7.

Remedy for Wrong Position.—My remedy for a wrong position taken or acquired by a learner of writing would be to give him or her paper not over six and one-half inches long, with single ruled lines, leaving a margin of about one-half inch at the top and bottom; furnish him with a pencil about one-half inch in diameter, and you will find that it would not be necessary for the child to cramp the fingers. As the pupil advances he will be ready to push movement, and will get a movement that will make him a good writer as well as a rapid one, a writer whose higher work will not only be legible, but pretty in its simplicity.

Cause of Slow Writing.—In my closing remarks I wish to say it is not because pupils use their fingers that they write slowly, but because the hand and arm are allowed to rest in one place; they cannot move them without lifting them, and hence they write a few letters or words which are cramped, instead of keeping the hand and arm out of the way. It would be impossible to start two horses equally matched in speed from a given place at the same time, one to be driven two miles and the other one mile, and have the first horse beat in the race.

Source of Rapid Writing.—When such a system of vertical writing as I have described has been taught correctly for a reasonable length of time, you will find the pupils to be rapid writers, who will beat in the race, because the letters are so simple they require less time to execute, and the distance travelled by their pens will be just one-half of that travelled by the pen writing a long, complex, extreme slanting system, as shown in illustration No. 8.

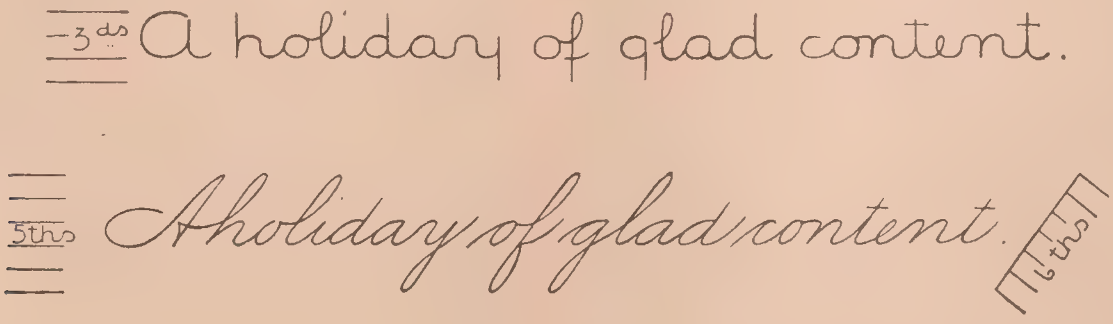

3ds
A holiday of glad content.
5ths
A holiday of glad content.
6ths

ILLUSTRATION No. 8.

History of the English Language.

Origin of the Language.

The English language is the speech spoken by the Anglo-Saxon race in England, the larger parts of Scotland and Ireland, the United States, Canada, Australia, New Zealand, South Africa and in many other parts of the world. It is the language of perhaps one hundred and thirty million people, and the number is rapidly growing.

Original British Language.—The original language of Great Britain, Ireland and parts of France belonged to the Celtic group, and it is still spoken in Wales, Brittany (France), the Scottish Highlands, and Western Ireland. This Celtic speech has, in the course of time, contributed some of its words to the English language.

Family of English Speech.—English speech as we now know it, belongs to that great family of languages which was spoken by the Aryan race, or races. This race originally inhabited the high table lands of Asia lying north of the western range of the Himalaya Mountains. Thence it spread to the South and West, peopling many countries, and becoming the source of the languages now spoken in India, Persia, Greece, Italy, France, Spain, Germany, Scandinavia, Russia, as well as of the English language. All these languages, because of certain root and other philological similarities to that of the Aryan tongue, are said to belong to the Aryan family of languages; or, as it is oftener called, to the Indo-European family of languages.

Group of English Speech.—The Indo-European, or Aryan, family of languages consists of several groups or divisions. One of these groups is named the Teutonic group because it is spoken by the Teutonic or German race or races, found in central Europe (Germany), Holland, Belgium, Denmark, Norway, Sweden, Iceland, England, Scotland, etc. It was in the year 449 that a little branch of this Teutonic group, consisting of a rough, gutteral speech of some two thousand words, crossed over from the northwest corner of the continent of Europe to the British Isle, being carried by the Jutes, Angles and Saxons, who came to both aid and conquer the Britons or Celts, as well as to confer on them a new speech—the Anglo-Saxon.

Branches of Teutonic.—The Teutonic Group of languages is divided into three branches, viz, German or High German, spoken in Germany proper and part of Austria; Dutch or Low German, spoken in Holland and generally in the low countries about the mouths of the rivers that empty into the Baltic and North Sea; Scandinavian, spoken in Denmark, Norway, Sweden and Iceland.

Dutch or Low German Branch.—The English tongue sprang out of and belongs to the second of the above branches—the Dutch or Low German branch. It was a mere dialect—and a crude one at that—of this branch, when it crossed the German Ocean, invaded Britain, and imparted its name, Angla-land, England, to the island.

Birth of English.—The Jutes came over to Britain from Juteland (Jutland) and settled in the Isle of Wight and Kent. The Saxons came over and settled in Southern and Western Britain, in four little kingdoms, which are now so many counties bearing their ancient names, viz, Wessex, or West Saxons; Essex, or East Saxons; Middlesex or Middle Saxons; Sussex or Southern Saxons.

The Angles came over and settled mostly on the east coast, calling their kingdom East Anglia, and dividing it into North Folk (Norfolk) and South Folk (Suffolk). Each of these three tribes or sets of Teutons brought its own Low German dialect along, and each dialect differed in many respects from the others; but, notwithstanding this, each found a congenial soil and took root, to grow and be blended in the course of a few hundred years into the vigorous and beautiful English speech.

Periods of English.—Students of the English language divide its growth into periods. We prefer the division made by Mr. J. M. D. Meiklejohn, Professor of the Theory, History and Practice of Education in the University of St. Andrews, Scotland, in his excellent work entitled "The English Language: Its Grammar, History and Literature." He divides and treats the periods, in substance, as follows:

I. Ancient English or Anglo-Saxon, 449-1100.
II. Early English, 1100-1250.
III. Middle English, 1250-1485.
IV. Tudor English, 1485-1603.
V. Modern English, 1603-present time.

As the changes in language are as gradual and imperceptible as the growth of a tree, so the above periods shade off into each other in a slow and gentle way.

Ancient English or Anglo-Saxon.—This form of English speech (450-1100) differed almost entirely from modern English, in that it was a highly inflexional speech, having five cases for nouns, and several declensions; three genders; dual and plural numbers; a much larger number of inflexions for verbs; very few foreign words; and an alliterative poetry without end-rhyme. Cædmon and King Alfred were writers who belonged to this Anglo-Saxon period.

Early English.—This period (1100-1250) was characterized by the Norman-French invasion of England (1066), which introduced a new people, language and institutions. The Anglo-Saxon language ceased to be written in books, and Norman-French became the language of law, the court and polite society. But the Anglo-Saxons and those of their lineage continued to speak their own language, introducing into it, of course, many Norman words, and gradually dropping the inflexions as of less and less use. Two books, written but not printed, belong to this period, one called the "Ormulum," by Orm; the other, the "Brut," or "Story of Brutus," by a monk named Laweman.

Middle English.—During this period (1250-1485) nouns, adjectives and verbs lost nearly all their inflexions, and the newly introduced verbs assumed the weak, or regular, conjugation. Even the common people tried to speak Norman-French, and the drift was in the direction of accepting that speech as the popular one. But this was checked by an Act of Parliament (1362) permitting English to be used instead of Norman-French. Moreover, poets arose, such as Chaucer, who wrote in the English of the time; and toward the end of the period appeared John Wyclif's translation of the Bible in the popular tongue.

Tudor English.—During this period (1485-1603) the inflexional endings disappeared entirely. Wenten became went, and hopen became hope. Under the Tudor kings a new and wide interest was taken in the study of foreign languages—Greek, Latin, Italian, etc.—and the English was enriched by the introduction of many foreign words, especially from Latin sources. This "Revival of Letters," as it is called in history, encouraged to copious speaking and writing of an English of great strength and comparative purity, and we find among the great authors of the time such poets as Spencer and Shakspeare, and such prose writers as Bacon and Hooker.

Modern English.—During this period (1603-present time) the grammar of the English language has undergone but little change, but there has been a continual enrichment of the vocabulary by the inflow of new words, either invented or adopted, for the purpose of expressing new ideas, and to meet the wants of a people rapidly expanding its thoughts and energies throughout the entire world. During this period the English language crossed the Atlantic Ocean westward, to become the speech, already, of over 80,000,000 people. It has become the language of the South Pacific continent, of Cape Colony in Africa, and of official India. Its strength and beauty for prose and poetry, art and science, industry and commerce, society and the emotions, are universally recognized.

The Foreign Elements in English.

The Celtic Element.—As has been seen, when the Saxons, Angles, and Jutes came over to Britain in the fifth century, bringing along their Teutonic or Anglo-Saxon speech, and overcoming and ousting the native Britons or Celts, or mingling with them as their superiors, the Celtic, or native British, language also yielded ground, but not without contributing many of its words to the spare and rough vocabulary of the Anglo-Saxons. From the character of some of these words it would seem as if the Teuton adventurers or conquerors must have found wives or domestics among the native Celts, for of such contributed words we find many denoting the home or domestic estate, such as breeches, clout, crock, cradle, darn, mop, pillow, mattock, etc. Again, the Anglo-Saxon speech accepted as part of itself most of the Celtic names for the rivers, mountains, lakes, and hills of Britain.

Thus much for the direct and at-home contribution of the Celtic to the Anglo-Saxon speech. But the Scotch, also Celtic, has also, at one time or another, made frequent contributions to the English speech, in the shape of clan, kilt, plaid, slogan, etc.; and Celtic Ireland has contributed shamrock, gag, log, brogue, etc.

The Celtic language made perhaps a still larger contribution to the English at a later period, and indirectly through the Normans who conquered England in 1066. These Normans, or Northmen, were originally Scandinavians—principally Danes—who, in the tenth century roved piratically southward and wrested that Celtic section of France which they called Normandy from the French king. Here they settled permanently, mingling with and absorbing the native Celts and resident Gauls and French, breeding a new, mixed and modified language called Norman-French. Of course this language was largely impregnated with

Celtic words, and these words the Normans carried with them to England at the time of the invasion in 1066. There they readily became a part of the speech of the common people, or English. Among them are such words as bag, barter, barrel, basin, basket, bucket, bonnet, button, cart, dagger, gown, mitten, vassal, wicket, etc.

The Scandinavian Element.—The same sea-roving and free-booting Scandinavians, called Northmen, Norsemen or Normans, but generally Danes, who, as we have just seen, invaded Normandy, in France, in the tenth century and afterwards England, in 1066, had long previously, in the year 787, swept down upon the coasts of Britain, and obtained a permanent foothold, so permanent indeed as that from 1016 to 1042, Danish kings sat on the English throne. These Danes being Teutons, brought along a German dialect akin to that of the Anglo-Saxons, or the then existing English, and, of course, the latter readily and easily borrowed from the former. Thus, the Danish element enriched English by such words as cake, call, crop, curl, cut, dairy, din, droop, flit, hustings, ill, kindle, plow, root, scold, sky, etc. The word "are" was not in the English until the coming of the Danes, and they introduced "to" as the sign of the infinitive mood.

The Latin Element.—The Romans (Latins) held Britain from A. D. 43 to A. D. 410, chiefly through garrisons. Their contact was with the original Britons (Celts), and consequently the Roman or Latin language of that era could not bear directly on the subsequent Anglo-Saxon or English speech Yet six important words of Latin origin, and due to that period, are found in English. These words are *castra,* a camp, as in Land-castra (Lancaster), Man-castra (Manchester); *strata,* a paved road, our street; *colonia,* a settlement, our colony; *fossa,* a trench, as in Fossway, Fossbrooke; *portus,* a harbor, our port; *vallum,* a rampart, our wall and bailiff.

Christian Latin.—But there came a time when the English language was to be more fully and directly enriched by the Latin. In 596, Pope Gregory, in his zeal for the conversion of the Britons, sent to the island the celebrated missionary, Augustine, and forty monks. They met with great success, and, as a matter of course, the English speech as it then existed readily absorbed numerous Latin words connected with the church services, government, and formalities. These words were received in the crude form of the speech of the time, but have been gradually refined into apostle, bishop, cup, clerk, monk, presbyter, preach, alms, rule, etc. Not only this, but Christianity introduced the English people to the outside world, engaged them in travel and commerce, making necessary new words for communication and providing opportunity for their introduction. While not all were Latin words, they came mostly through Latin sources, or the commercial sources of the time. Among them may be instanced butter, cheese, fig, pear, peach, lettuce, pepper, camel, lion, elephant, oyster, pound, ounce, candle, table, marble, mint, etc.

Norman-French.—We have already mentioned the Norman invasion of England in 1066. They brought along their language, the Norman-French, classed as a Latin tongue. This language became the language of law, religion, court, college, nobility and books. It may have been a battle between Norman-French and crude English at first, but when the Normans lost their own country (Normandy) in 1204, those in England began to accommodate themselves to the English speech, and the English began to affect more and more the Norman speech and ways. Thus a happy and rapid blending of the two languages went on for a period of considerably over two hundred years with the result that when the poet Chaucer produced his Canterbury Tales in poetry and in the English of the time (1384-98), they could be read by both Norman baron and Saxon yeoman. The Normans were used to war. Therefore we may guess that many words which came into English from the Norman-French would savor of war. So, we find arms, armor, assault, battle, captain, chivalry, lance, standard, trumpet, mail, vizor, etc. Again, the Norman nobility became the barons of the king, under the operation of the feudal system which they introduced into England. Therefore, as was to be expected, they contributed many words to the English speech relating to feudalism. Among such words are homage, fealty, esquire, vassal, herald, escutcheon, etc. Further, the Normans were fond of hunting; hence such words relating to the chase, as chase, brace, course, covert, copse, forest, quarry, venison, etc. They introduced into England their own system of laws and courts and, therefore, into the English speech such legal words as assize, attorney, court, judge, justice, plaintiff, sue, summons, trespass, etc. We must also add to these a long series of abstract terms of Norman-French origin, such as realm, state, constitution, people, treaty, army, navy, etc. While all these contributions were being made and accepted, the English language was firmly retaining, in modified forms, its original words relating to agriculture, as plow, harrow, flail, etc.; those relating to seafaring, as ship, boat, hull, fleet, oar, sail, etc.; those appertaining to the human body, as eye, nose, cheek, tongue, hand, foot, etc.; those denoting specific actions, as leap, spring, slip, slide, walk, fall, run, swim, ride, creep, crawl, fly, etc.

Synonyms.—This blending of languages, this gradual making of one speech out of two, gave rise to a striking phenomenon. When a Norman tried to use an English word he would compare it with, or associate it with, or put it alongside of, the same word in his own language. When the Englishman tried to use a Norman word, he would associate it with the English equivalent. This gave rise to a bilingual, or double-worded, condition of the language, as seen in its synonyms—for instance, will and testament, act and deed, aid and abet, acknowledge and confess, meet and assemble, cloak and dissemble, humble and lowly.

The Revival of Learning.—The greatest enrichment of English speech from classical Latin sources, and we may say from Greek sources as well, took place soon after the capture of Constantinople (1453) by the Turks. This event caused an exodus of learned men to all parts of Europe. They became teachers of Greek and Latin in Italy, Germany, France, England and elsewhere. With them came a host of Latin and Greek words—especially the former—which were forced into English with very little change of form, among them being opinion, faction, oration, pungent, etc. They came in such numbers as to lead to a pompous and affected speech, and to the comment by Sir Thomas Browne (1605-82), "that if English pens maintain that stream (of words) we have of late observed to flow from many, we shall, within a few years, be fain to learn Latin to understand English." But at length the language became so saturated with these new and purely Latin words that a revolt came, and the best writers returned to a less ostentatious and affected English.

Spanish Element.—After the discovery of America (1492) and the consequent impetus given to ocean commerce, the English and Spanish peoples and languages came into closer contact, and the former speech was enriched by many contributions from the latter; the English language, as has been observed, being ever on the alert to increase its vocabulary by what it finds good and needful in other languages. Among the Spanish words thus absorbed by English—some of them with very little change of form—are armada, alligator, barricade, buffalo, cargo, cigar, cork, creole, eldorado, fillibuster, indigo, merino, mosquito, mulatto, negro, tornado, vanilla, etc.

Italian Element.—The Italian language has for many centuries been a liberal and useful contributor to the English, especially along the lines of literature and art. Thus, we have borrowed from the Italian the poetical terms, canto, sonnet, stanza, the musical terms, piano, opera, oratorio, soprano, alto; the architectural terms, portico, cupola, piazza; and many others of general tenor, as bandit, burlesque, cascade, charlatan, ditto, folio, gondola, grotto, influenza, malaria, pantaloon, ruffian, umbrella, volcano, etc.

Dutch Element.—The Dutch and English languages being akin—both Teutonic—and England and the Netherlands being close together geographically and commercially, it would seem as if words from the Dutch should abound in English. But this is not the case. Yet some very expressive words of Dutch origin are found, relating mostly to seafaring. Among these may be mentioned, ballast, boom, boor, luff, reef, skates, skipper, sloop, smuggle, yacht, yawl, etc.

French Element.—We have already seen how largely the Norman-French element has blended with the English language. But English has drawn directly on the French language, from time to time, for a great number of expressive words, which it has assimilated with very little change of form or pronunciation. They relate for the most part to manners and customs and to inventions and discoveries. Among them may be mentioned such words as aide-de-camp, belle, bivouac, blonde, bouquet, carte-de-visite, coup d'etat, debris, depot, etiquette, gout, outre, personnel, program, protege, trousseau, etc.

German Element.—English, being a Teutonic language of the Low-German order, has had very little need to enrich itself from a kindred speech—the High-German. Yet there have been, especially in later years, right frequent borrowings of such words as cobalt, feldspar, hornblende, loafer, meerschaum, nickel, plunder, poodle, quartz, zinc, etc.

Hebrew Element.—It could hardly be otherwise than that, through the agency of the Bible, the Hebrew should be a liberal contributor to the English speech, and from Hebrew sources we find such words as amen, behemoth, cabal, cherub, hallelujah, hosanna, Jehovah, jubilee, manna, rabbi, Pharisee, Sabbath, Satan, seraph, shibboleth, etc.

African Element.—Commercial relations with remote countries have caused an importation of words into English, generally of a kind expressive of the thing dealt in or imported. Thus, from African sources, we have derived, among others, the words canary, chimpanzee, gnu, gorilla, guinea, oasis, zebra, etc.

American Element.—From various native American sources have come into English words expressive of the new things seen and dealt with in commerce, and expressive of relations novel to the old world sojourners. Among these may be mentioned alpaca, bucaneer, cannibal, canoe, chocolate, condor, guano, jalap, mahogany, maize, moccasin, mustang, oppossum, potato, raccoon, skunk, squaw, tobacco, tomahawk, tomato, wigwam, etc. This list may be enlarged indefinitely when it is remembered that the usage of the English language in the United States and Canada has been to adopt bodily from the native American, or Indian, speech the names of rivers, mountains, tribes, villages, etc., thus forever preserving the words and ideas of a perishing people.

Arabic Element.—The Arabic language has been a liberal contributor to the English. This may seem strange at first, but not when we consider that the Arabs were once advanced mathematicians and scientists, and their country a rich producer of the gums, spices and other articles which gratified English taste and enlarged commerce. Among the Arabic words found in English are alcohol, algebra, alkali, artichoke, assassin, caliph, carat, cipher, coffee, cotton, elixir, fakir, gazelle, giraffe, harem, magazine, mohair, nabob, naphtha, shrub, sofa, sultan, syrup, talisman, tariff, zenith, zero, etc.

Other Foreign Elements.—Indeed, it may be said that hardly a nation exists which has not, through the agency of commerce, contributed something of its speech toward the enrichment of the English tongue. Thus, the Chinese have given us the words silk, tea, typhoon, nankeen, junk, joss, hyson, bohea, etc. From the Hindu language come Brahmin, calico, chintz, jungle, loot, musk, pagoda, pundit, rupee, sugar, thug, toddy, etc. The Hungarian language has given us hussar, sabre, etc; the Malay, bamboo, bantam, caddy, gong, gutta-percha, rattan, sago, upas, etc.; the Persian, awning, bazaar, caravan, check, chess, divan, jar, jackal, lemon, lilac, orange, sash, shawl, turban, etc.; the Portuguese, albatross, cobra, cocoanut, commodore, lasso, marmalade, molasses, etc.; the Russian, czar, knout, rouble, steppe, etc.; the Turkish, bey, dey, kiosk, ottoman, tulip, etc.

New Word Making.—The Anglo-Saxon, or very early English, was a resourceful language in itself, that is, it had, like Greek and German, the power to meet new ideas and give them expression by means of combinations of its own words. Where a language has a large and rich vocabulary this method of enlarging it is very satisfactory, but where the vocabulary is scanty it becomes less satisfactory, yet the result is never without an element of strength and cleverness, whatever may be said of its smoothness and beauty. Thus, just as the Greek said camelopard, for that long-necked and spotted animal which resembled both camel and leopard; and just as the German says hand-shoe for glove, and finger-hat for thimble; so the Anglo-Saxon, or early Englishman, said pinch-penny for miser, mumble-news for tattler, fore-elders for ancestors, forewit for caution, inwit for conscience, folk-wain for carriage. Some early writers contended that this method of word-making should never have been departed from. But the incoming of the Norman-French settled its fate by offering its single words for those homely double ones. Later writers have advised a return to the old-fashioned method, but such consider very lightly, or not at all, the extreme paucity of the early English vocabulary, and forget the immense and rapidly growing need for new words expressive of ideas and embodying forms and meanings of a commercial, scientific and industrial kind. Such words are, for the most part, far beyond the power and resource of a primitive language, however combined; for no primitive language ever rises above its people, and the Anglo-Saxons were a people of simple wants and notions. So, therefore, it is that the English language, when it has need of a new word, finds it most convenient to resort to other sources than its own primitive ones for what it wants. It has enriched itself during the past active century by hundreds of coinages for the purpose of introducing new discoveries and rendering them useful in daily life. Among these we find telegraph, telegram, photograph, telephone, photophone, dynamite, cinnemetograph, automobile, bicycle, etc., and so it will continue to do as long and fast as new things require new names, and new ideas new expression.

Doublets.—In introducing words from Latin into English speech, two doors or means of entrances seem to have been used—an eye and ear door, so to speak, or in other words book Latin and second-handed Latin, or that through the Norman French, or some allied language. Thus, the pure Latin word benedictionem has taken the eye form of antecessor and the ear form of ancestor; so, conceptionem becomes conception and conceit; exemplum becomes example and sample; factum becomes fact and feat; fragilum becomes fragile and frail. The same fact follows the introduction of words into English from the Greek; thus, adamanta becomes diamond and adamant; phantasia becomes fancy and phantasy.

...*The*...

World of Business

Methods, Rules
Customs, Forms

AS PRACTICED IN THE

GREAT COMMERCIAL CENTRES

How to Meet With Business Success

THE FINE-ART OF GETTING ON

Summary of the Rules that lead to Fortune, showing:

- Elements of Success
- How to Choose a Business
- Rules for Beginners
- How to Write Business Letters
- Business Through Banks
- Opening Bank Accounts
- Forms and Functions of Checks
- Notes—Bank, Promissory and Others
- Endorsements and Legal Effects
- The Draft and Its Uses
- Orders and Their Effect
- Due Bills and Their Uses
- Bills of Exchange, Forms and Nature
- Insurance of all kinds
- Securities, Bonds and Stocks
- Company and Corporation Business
- Shipping and Warehousing Business
- Business of Exporting and Importing
- Water and Land Transportation
- Express and Mail Business
- Dictionary of Business Terms
- Business Hints for Bookkeepers

A complete Business Handbook. Every form approved. Every rule tested. Every method sanctioned by the great Commercial and Mercantile world.

The World of Business.

Methods, Rules, Customs and Forms.

At the Start.

Elements of Success.—Business is business all the world over. The business idea or instinct is the same in the workshop or on the farm, and just as necessary, as in the commercial or mercantile world. The same is in great part true of business methods, laws and customs. The unbusinesslike man is a failure no matter what his calling. The good business man turns both instinct and ability to practical account and his chances of success are always at par.

Choice of Business.—Let choice be along the line of your natural bent. Let firm resolve, persistency, industry, integrity, back your choice. Thus, native genius will be actively encouraged and supported by acquired qualification, and the partnership will prove invincible. Remember that all skill, all real ability, no matter what the choice of occupation or career, is only stock in trade, genuine capital, which, if rightly invested, turned over, and accounted for, is more than the equivalent of visible merchandise or money.

Demand.—More and more every day, in this age and country, is there a demand for skilled labor, for trained and educated mechanics, for resourceful clerics, for that class of ability which initiates enterprise, co-ordinates business forces, and creates successes. In other words, opportunities were never no frequent as now, and the demand never greater for those who can create or take advantage of them. And all this is business.

Beginners' Rules.—Make choice as above noted; then stick, qualify. Let genius fully second all acquisition. Be interested, energetic, truthful, manly, cautiously original. An employer's business is always your own, or should be; this is business. If you are a seller, cultivate acquaintances, remember names and faces, study address, talk common sense in few words, but pointed and direct. If a buyer, know exactly what you want, its value to you, its make and qualities, and don't fail to know enough of human nature to understand the seller's moods and motives. This is all business. Keep Argus eyes on your credit. Venture into no unknown field, especially on borrowed capital. Credit and speculation are polar extremes. Develop surely and along legitimate lines. Enlarge buildings, stock and other normal facilities and requirements. Change from poor to advantageous localities. Cultivate systematic habits in business and living. The crucial test in business, as in all things, is to do well what you find to do.

Business Letters.—In business of any kind correspondence is a prime essential. In many businesses more depends upon correspondence than on personal contact. Correspondence, therefore, which is both business conduct and conversation at a distance, should reflect naturally and truthfully the elements upon which one depends for business success. In acquiring the art of correspondence, it should be studied so as to embrace that which relates to social and public affairs as well as to strict business matters. It is perhaps best that one's style of business letter should be largely his own; that is, should be characteristic of the writer, yet there are certain forms which custom has established that should be subscribed to.

The Address.—This includes the date, which is always of the utmost importance, and should be written on the upper right-hand of the sheet. The use of printed letter-headings is becoming more general every day, and it cannot be too much encouraged as both a convenience and necessity. In the printed letter-head there is usually a line which fixes the place for writing the date. If there is no letter-head, the place of residence or business of the writer should be written just over the date.

The address proper includes the salutation and should be written near the upper left-hand of the sheet, a little below the level of the date. It is always well to make the place of address of the person addressed a part of the address. Therefore, if writing to a gentleman and the subject be strictly business the full character and form of address may preferably be:

124 Ogden St.,
Washington, D. C., June 9, 1905.
Mr. William R. Jones,
Lycoming, Pa.
Dear Sir:

Observe that in the above the letter "D" in Dear is placed under and even on the page with the "M" of Mr. If the party addressed be a married woman, the word "Madam" takes the place of "Sir." Where parties are well acquainted, or the letter is of a social nature, the above formal form of address may be dropped and simply "Dear Mr. Jones," or "Dear Mrs. Jones" substituted; or if writing to a party younger than yourself the patronizing word "My" may be introduced, as "My Dear Mr. Jones."

Observe again, that the above form of address avoids the old and obsolescent form of "Dear Friend," "Kind Friend," etc. Very friendly business or social letters may appropriately salute alone with "My Dear Harry," etc. A firm address should substitute the contraction "Messrs." for "Mr.," and the word "Gentlemen" for "Dear Sir." If a company, write the name in full as "Historical Publishing Co.," and the word "Gentlemen" in place of "Sir." In writing to those in official life the tendency is to use the "Mr." instead of "Hon." But not to be too radical in this matter, such an address may still be:

HON. THEODORE ROOSEVELT,
President.
DEAR SIR:
or,
HON. JOHN HAY,
Secretary of State.
DEAR SIR:

Body of the Letter.—The body of the letter should begin about under the word "Sir," and should be plainly and pointedly written, in paragraphs corresponding with separate subjects. If a reply letter, it should begin with a reference to the date and subject of the letter to which it is a reply, as, "I am in receipt of yours of the 5th, inst. (or ult.; *inst.* means present month; *ult.*, last month; *prox.*, next month) relating to the shipment of merchandise on or about the 8th prox. In reply, I inform you that the time will suit me." If not a reply letter it should begin offhand. "Please send me by express ten copies of "Manual of the Nation," with bill, on receipt of which I will remit by check."

Closing.—The complimentary closing should begin with a capital, and, like the salutation, its form depends on the relation between the parties. "Respectfully yours" is a good general form, though it may well be "Yours truly," "Very truly yours," "Yours cordially," etc, the last more a social than a business form. The most important part of the closing is the signature. Even with those who write legibly the signature becomes often a puzzle to those who see it first, either because of haste and carelessness in executing it, or through the cultivation of some fantastic design in order to render it exceptional or hard to counterfeit. It should by all means be plainly executed, in order to save tantalizing effort to unravel it.

Envelope Address.—Write all parts of a letter in black ink, especially the outside address, which should, for every purpose of correspondence, be most carefully attended to. Write first the name, a little above the centre of the envelope, so plainly that he that runneth may read; under it and further to the right, the post office; under that and still further to the right, the State abbreviation, being careful to see that the latter is so executed as to remove all doubt about it being an Me. or an Mo., a Cal. or a Col., an N. Y. or an N. J., etc. Always place the stamp on the upper right-hand corner. If you wish to designate a post office box number, or to particularize the address in any way, do so down in the left-hand corner. It is always wise to place your own name and address in small letters on the upper left-hand corner, and enclose them in brackets. This will insure the return of the letter in case of faulty address, and save its becoming one of the 30,000 that go daily to the Dead Letter Office. Business letters should always be promptly mailed, and correspondence kept up-to-date. Negligence in this respect is unpardonable, and reflects most disastrously on business ability.

General Remarks.—Single sheets for letter purposes are preferable to double sheets. Do not fold in a slovenly manner, but so that edges will meet and folds be straight. Avoid blots, erasures and interlineations. Spell correctly. Write plainly, and grammatically. If the letter be an inquiry for one's personal benefit, always enclose a stamp for return postage. The letters P. O. are not necessary after the name of the post office. If you have occasion to use a postscript introduce it with the initials P. S. In using postal cards you can dispense with salutation and complimentary close. Put page numbers at the heads of sheets. In writing to officials whose names you may not have at hand address them by title, as "To the Secretary of War, Dear Sir," etc. An N. B. to introduce a second postscript, means "note well." Count money received by mail immediately, and acknowledge receipt promptly. "Jr." is the abbreviation for junior. "Esq." is not much in use except after the names of lawyers. Keep friendship and business apart as much as possible. Dates, sums of money and statistics should be in figures, but all other figures should be written out. Use good writing material, paper, envelopes, etc. Address a medical doctor as "William O. Smith, M. D.," or as "Dr. William O. Smith." A divine who is an LL. D. may be addressed as "Rev. Dr. John P. Jones," or as "Rev. John P. Jones, LL. D." If only a D. D. then substitute D. D. for LL. D. in the above form. "Sir" is all right for "Dear Sir," only a little more formal. In addressing councils, boards and other bodies the word "Gentlemen" takes the place of "Sirs" or "Dear Sirs." Make it a point to preserve copies of all important business letters. "Gen.," "Col.," "Capt." "Lieut.," etc., are common abbreviations for the full titles. Better not write on both sides of the sheet. Never write an anonymous letter. Never abbreviate the name of a post-office.

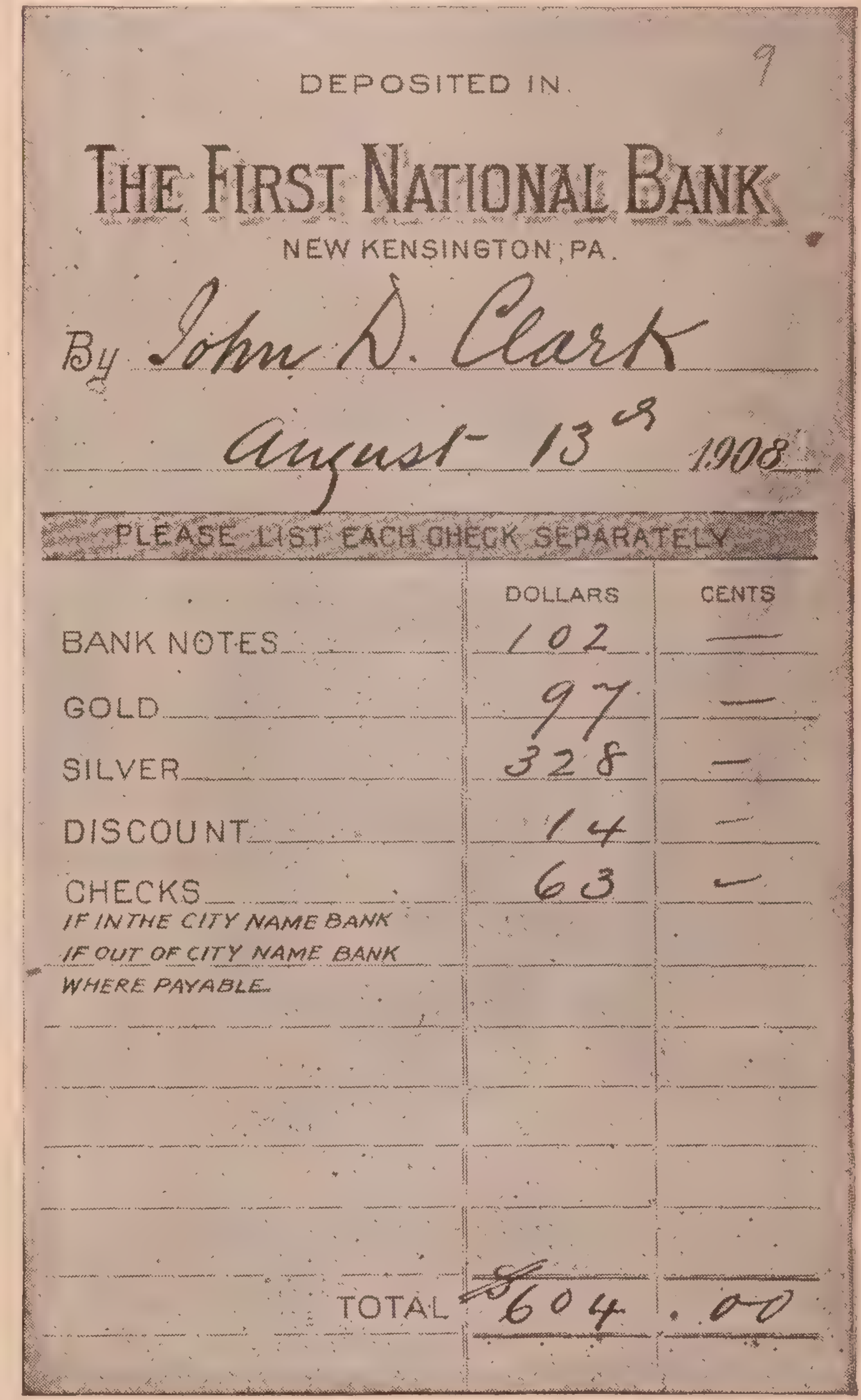
Business Through Banks.

Uses of Banks.—Banks are of great antiquity. The word "bank" signifies a "bench" upon which money dealers sat in market places during the Middle Ages. When a banker failed they said his bench was broken—bankrupt. The first bank opened in the United States was the Bank of North America, in Philadelphia, 1782. Banks are indispensable to modern business. They afford opportunity for the payment of money by means of checks to an extent, and with a convenience, impossible with currency. Large and ample as our currency—notes and coin—is, less than 10 per cent of the business of the country is carried on with it. Banks afford safe places of deposit for money and other valuables. They supply money on loans to those who need it for businees. They collect and give credit for moneys, and are an invaluable medium for negotiation, and for the inception and carrying on of business enterprise of any and every kind.

Kinds of Banks.—Banks in this country are: 1. National; that is, those authorized by the national government. They are banks of issue, privileged to send forth their own notes as currency. 2. State, or those authorized by the States. These are also banks of issue. 3. Savings banks are authorized by State laws, but are not banks of issue. 4. Private banks, which are not banks of issue, but otherwise carry on banking functions, lending, collecting, discounting, etc.

Selecting a Bank.—In selecting a bank through which to conduct your business, look to its financial solidity, next to its convenience of access to you by mail or in person, and then to its spirit of accommodation. One can never be too well acquainted at his bank, and the acquaintance should be mutual, for business, as carried on through banks, hinges on a thousand little essentials, quite separate from the validity of the securities you have to offer.

Opening an Account.—If unknown to the presi-



DEPOSITED IN 9

THE FIRST NATIONAL BANK

NEW KENSINGTON, PA.

By John D. Clark

August 13d 1908

PLEASE LIST EACH CHECK SEPARATELY

	DOLLARS	CENTS
BANK NOTES	102	—
GOLD	97	—
SILVER	328	—
DISCOUNT	14	—
CHECKS *IF IN THE CITY NAME BANK* *IF OUT OF CITY NAME BANK* *WHERE PAYABLE*	63	—
TOTAL	$604	.00

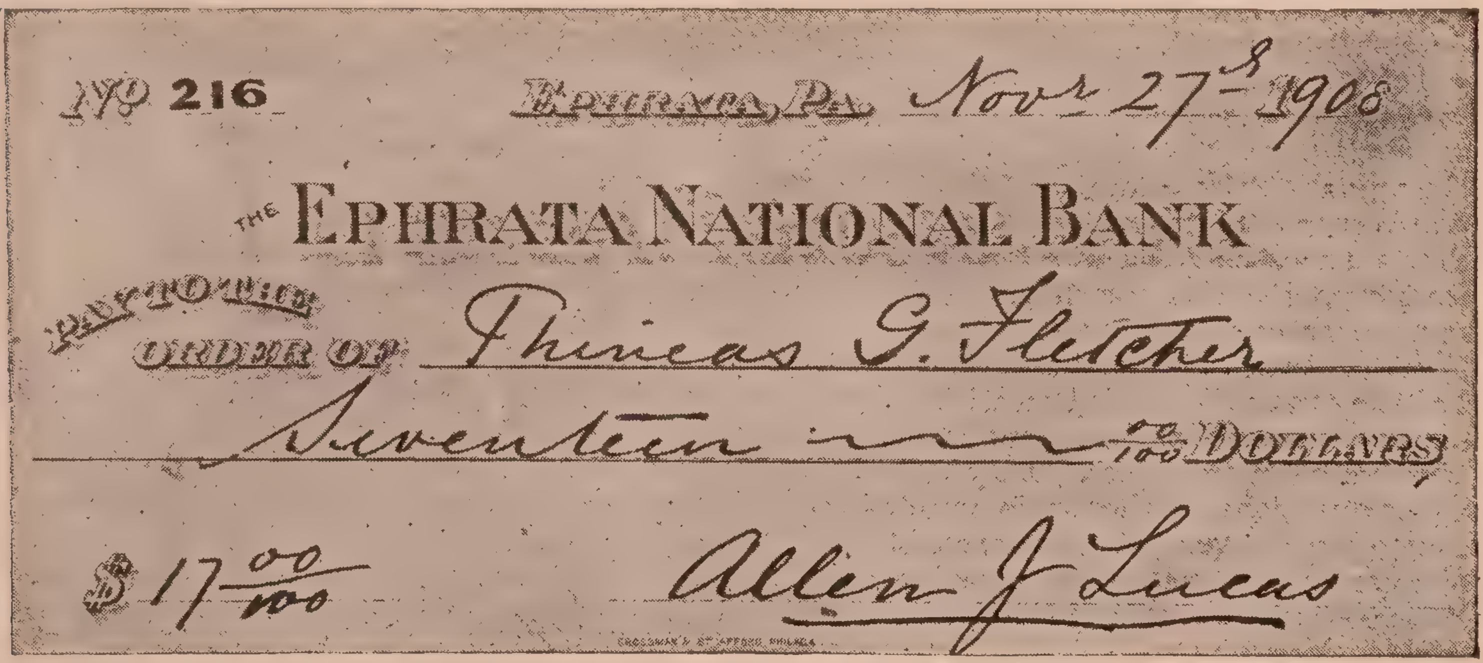
dent or cashier of the bank you have selected, take some one with you who does know them and who will introduce you. Your signature will be taken in a book, and you should be careful to write in there just as you intend to write it afterwards on your checks or notes, for by comparison of your business with your permanent signature the bank will be able to protect itself and also yourself against forgeries. You will be handed a small bank book with your name and address written in it; and it will contain a supply of deposit slips. (*See form of filled out deposit slip, last page.*)

You will be told how to fill this slip out, and to place it in your bank book with your money. Then you pass the book in to the receiving teller, who counts the amount of your deposit and gives you credit in the bank book, passing it back to you. You will then be given a small book containing blank checks for your future use in checking out money. Take care of your bank book. It is your receipt for the money you have deposited. The receiving teller will balance it for you whenever you request it; and he will return to you the checks you have drawn in business, cancelled, of course, so as to be of no further use, except as possible vouchers in case of legal complications, for which purpose they should be preserved.

Bank Machinery.—It would be well to acquaint yourself with the machinery of the bank before leaving it, for you may have to make, in the course of business, separate inquiries of its department heads. It is best to know just whom to approach in order to expedite business, especially when a bank is thronged. The bank officers, president and board of directors, have general supervision of the bank's affairs. They meet statedly for business purposes, especially to pass on the value of the commercial paper they find offered for discount. You should learn their days of meeting, which are called "discount days." Sometimes the directors invest the president or cashier with the power to pass on paper for discount. The cashier is in charge of the inside machinery or workings of the bank. The receiving teller takes the money offered to the bank, and gives each depositor credit in his bank book. The paying teller pays out the moneys of the bank. He must be familiar with the signature of each depositor, and of the exact balance to his credit as shown on the bank's books. The clerical force of the bank is organized and distributed so as to run most conveniently and safely the book-keeping machinery; the note clerk, who has charge of the commercial paper in the bank's possession, being the most important clerical functionary.

Form and Function of Checks.

Writing the Check.—This is the form of the usual plain business check, filled out:



№ 216 EPHRATA, PA. Novr 27th 1908

THE EPHRATA NATIONAL BANK

PAY TO THE ORDER OF Phineas G. Fletcher

Seventeen 00/100 DOLLARS

$17 00/100 Allen J Lucas

In giving a person your check you really give him a draft payable at sight on the bank in which you keep your money, for your check is an order from you to the bank to pay, on demand, as much money and to the person you have written into it. It looks like a very simple thing to fill out a check, but there are certain things about the act no one can omit with safety. Be sure to write in the correct date. A wrong date is really worse than no date, for a very old date or a date not yet reached gives rise to greater question than absence of a date, which shows evidence on its face of error or negligence. Besides, absence of a date on a check does not necessarily warrant the bank in refusing to pay it. It has been decided that a check dated on Sunday is valid, though the same is not true of a note. A check filled out, or written entirely in lead pencil may pass in law as valid. So, a check written in any unprescribed form may prove to be valid at law, provided its essential features can be fairly interpreted. But as to all of the above let it be strongly urged upon every business man not to complicate his business nor compromise his reputation by failure to write checks in ink, or to insert the right date, or to observe a clear and customary form.

In writing the receiver's name into a check begin the first letter close up to the printed words on the left, and if there remains space on the line to the right, after the name is written, fill it out with a wavy line ∼∼∼∼∼∼∼∼. It is very necessary also to begin the writing of the words which mention the amount close to the left margin of the check, so as to prevent the writing in there of any word or words by a fraudulent receiver which will raise the value of the amount. So, you should by all means fill any blank space remaining at the right of the amount words with a wavy line ∼∼∼∼∼∼∼∼∼∼ for a similar reason. Write out the amount words in full, except those giving the cents. The cents are usually provided for in figures as fractions of a dollar. Thus 48-100 dollar is 48 cents.

It is not good business to write a check payable to "bearer," as "James Rhodes or bearer," for if it is lost or stolen any bearer of it is put in a position to collect it. Always make a check payable to order, as "James Rhodes or order," then it will pass only by endorsement, and be better protected against fraudulent use.

In the lower left corner is a place for you to repeat the amount in figures. See that these figures are correct in order to avoid complications. If they should happen to be wrong, the courts will decide the amount by the written words.

In signing a check be sure to produce your signature as nearly like that you executed in the book of the bank as possible. This will avoid all hesitation or question by the bank officials.

If you wish to draw money yourself, you make the check payable to the order of "Cash" or to "Self" or to your full written name. In the last two cases you will have to endorse it.

If you are using check forms as provided for you by the bank, do not tear off your completed check till you have transferred all its essential features—date, person, amount, number, etc.—to the stub on the left. This becomes a very important memorandum, and it is always proper to number your check and make the number a part of such memorandum.

It is all wrong to give a check to a person on the condition that he is not to use it until a certain day. It is all wrong to give a check for more than your balance in bank. It is all wrong to mail a check when you have no funds in bank, with the expectation of making a deposit before the check reaches the bank. In the case of a forged check the bank must ordinarily lose, but the person whose name is forged may become liable if his carelessness has in any way contributed to the forgery.

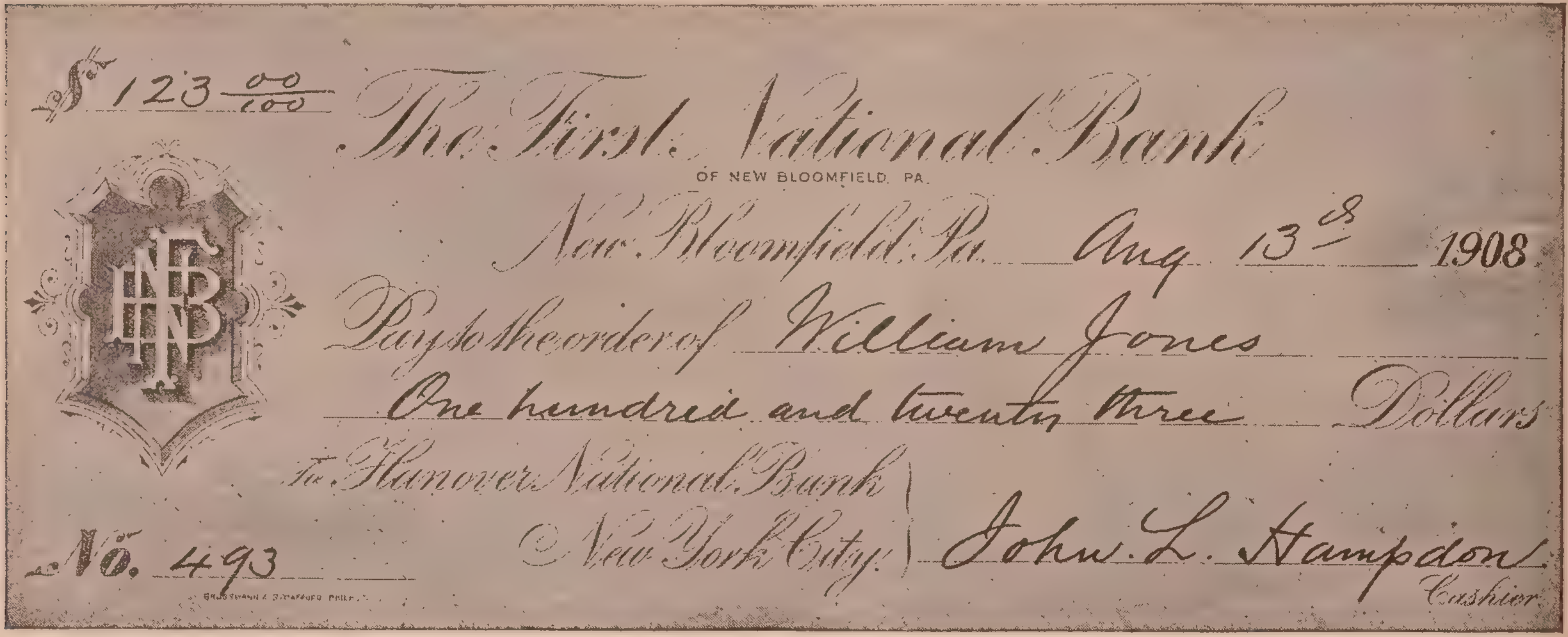
Endorsing Checks.—The first endorsement on the back of a check should be about an inch from the top, and the rest under it in order. The top of a check is the left end of its face. When one endorses by simply signing his name it is called an endorsement in blank, and the check becomes one payable to bearer. To avoid the possibility of a possible finder of such an endorsed check getting the money on it, many people and houses take the precaution to write or stamp over their endorsements, when the check is intended for deposit, "For deposit," or "For deposit only;" then the bank will pay out no money to anybody on it. If you wish by your endorsement to pass the check to some one in particular, you write the words "Pay to O. S. or order," and your signature beneath. A check has been properly called a "nimble piece of paper." Do not keep them about you, especially if endorsed in blank, as then they are payable to bearer, but deposit them, or keep them moving rapidly by use. If, however, you have occasion to hold on for a brief time to a check endorsed in blank take the precaution to write on the back of it, "Pay to the order of (your own name), then it will not be cashed till you sign it. Stamp endorsements are in almost universal vogue in large banking concerns. If you are trustee, treasurer, attorney-in-fact, etc., your title should follow your signature.

How to Stop Payment.—If you have given a check to a wrong person, or erroneously drawn it, or it has been lost, or for any reason you wish to stop its payment, send word to your bank at once to do so, giving the number and full description of the check. Banks, of their own volition, will stop the payment of a check signed by a person who has since died, as soon as they are notified of the death.

Protest.—If you have deposited a check in your bank, and the bank finds it worthless, it will be protested and returned to you marked "no funds." The protesting officer—usually a notary public—will also have notified you and all parties to the check of the fact of protest. Protest and notice are for the purpose of holding the endorsers. The bank, having given you credit for the amount of the check when you deposited it, will in case of "no funds," charge the amount against you. When you receive the protested check and notice, retain them as evidence of the debt and ask the party who drew the check for an explanation. If he has only blundered he will correct the matter. If otherwise, you will have your remedy at law.

Certified Check.—If you wish to use your check at some strange bank or with a person who does not know you, get an officer of your bank to certify it. This he will do by writing or stamping upon its face the words "Good, when properly endorsed," dating and signing the same. This amounts to a guarantee of payment on the part of the bank, and your account will be charged with the amount.

Check and Draft.—You have seen that your check is like a draft on your bank payable at sight. The bank must pay it on demand if you have funds sufficient there. What you really do in giving the check is to make payment to a creditor. An ordinary commercial draft has a form different from a check, and its purpose is to collect money from one who owes you. The bank or person you have drawn on is not compelled to honor it, but has the power of acceptance or refusal. Almost every bank keeps a deposit of a certain portion of its funds in some other bank in or near the great money centres of the country, and it calls such a bank its correspondent. When it wishes to use any part of this deposit it does so by means of a bank draft, which has the function of a check. Such drafts are called cashier's drafts or checks. This is their usual form:



$ 123 $\frac{00}{100}$ The First National Bank

OF NEW BLOOMFIELD, PA.

New Bloomfield, Pa. Aug 13^{8} 1908

Pay to the order of William Jones

One hundred and twenty three Dollars

To Hanover National Bank
New York City

No. 493

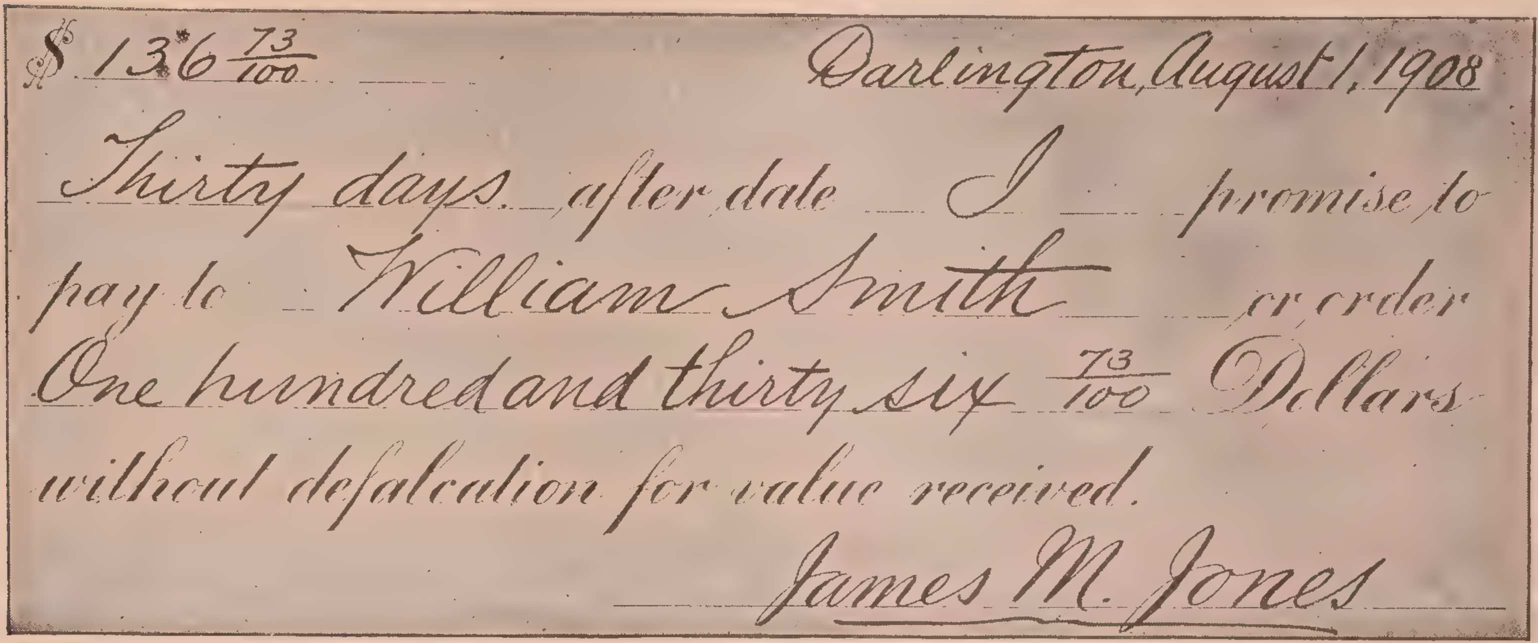
John L. Hampdon
Cashier

They are in very common use among banks, pass nearly everywhere as cash, and serve an important purpose in the transaction of business between different parts of the country. By means of the clearing house system which exists in every commercial city, such paper is handled with great facility, and transactions running into millions are carried on every day.

Bank, Promissory and Other Notes.

Bank Notes.—The United States does not act as a bank, but it has issued as part of its currency system a variety of bills or notes which are redeemable in coin, either gold or silver; also a class of notes called silver certificates, which are redeemable in silver. Hundreds of millions of such notes are in circulation, passing as cash. The national banks also issue notes in the simple form of promises to pay on demand. So, the State banks issue notes, if so authorized, which are promissory notes payable on demand. National banks must deposit United States bonds in the national treasury to the amount of 90 per cent. of the notes they wish to issue, as collateral security, before they can make such issue. State banks of issue are generally required to keep a coin reserve on hand for securing their notes.

Promissory Notes.—The ordinary form of a plain promissory note is this:



$136 73/100 Darlington, August 1, 1908

Thirty days after date I promise to pay to William Smith or order One hundred and thirty six 73/100 Dollars without defalcation for value received.

James M. Jones

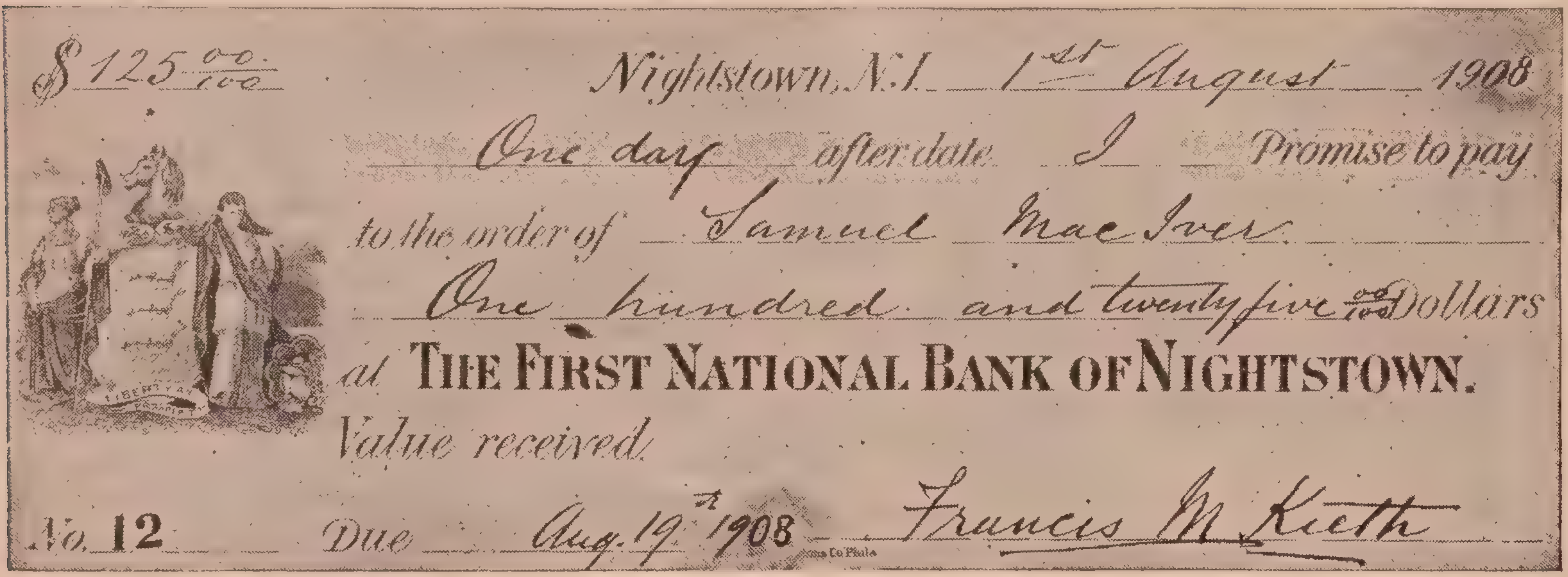
It is a written, or partly written and partly printed, promise to pay a certain sum of money. The party who makes and signs the note is called the "maker," and the person in whose favor it is made is called the "payee." A promissory note may be made payable on demand or on time. It becomes a negotiable or transferable paper by simple endorsement only when it is drawn payable to "order" or to "bearer." A promissory note running "I promise to pay to John Jones," is not negotiable. It can be transferred only by formal assignment. Expiration of the time mentioned in a note ends its negotiable quality. Notes, like checks, may be written on any kind of paper, and in ink or pencil, but it is best to use blanks or good paper and always black ink.

Date and Other Features.—The date of a note is one of its important features, for it fixes the beginning of the running time. The running time should be carefully specified as so many days or months after date. This is the usual form, though some good business men contend that it is preferable to specify the exact date of payment by the words "promise to pay on June 6, 1905." As already observed, a note dated on a Sunday is void. The end of the running time is called the maturity of the note, but in States which allow days of grace three days beyond the mentioned running time are allowed. Days of grace are abolished in many States, and the tendency is to do away with them entirely. If a note contains a promise to pay in any commodity or thing other than money, it is not a negotiable instrument, but one which passes only by formal assignment as any other agreement or contract. The words "value received" and "without defalcation" are not necessary to the validity of a promissory note. That value has been received and that payment will be made without defalcation are implied, till the contrary is made to actually appear. When the running time of a note is days, count the actual days; but when it is months, count the time by months. No note is valid without the maker's signature. He may bind himself by signing his name on any part of the paper, or even by signing his initials, but no good business man ever complicates or endangers his paper by any such carelessness or indifference to the proprieties. If you intend to pay interest on the amount of your note, you should say so on the face, mentioning the rate; or, if the legal rate is intended, the words "with interest" are sufficient. If no interest is mentioned, the note will not draw interest until it matures. After maturity interest will be collectible at the legal rate until the note is paid.

Notes to Bank.—See next page for form of note made payable at a bank:

It differs in no wise from the ordinary form of note except that it mentions the place where the payment is to be made. A note which mentions no place of payment is payable at the maker's house or place of business. Notes made payable at a bank are in general use and very convenient. The payee can get them discounted and thereby enjoy the use of the money before it is due, and the bank will attend to the work of collection. Discount is what the payee is willing to pay the bank for advancing the money on the note before it is due. The rate of discount is a percentage of the face value, and is usually well-established and understood for first-class paper in banking circles. When payment of a note to bank is not made at maturity, the bank has it protested, and the notary notifies the maker and endorsers of the fact, in order to hold them responsible.

Accommodation Notes.—The spirit and intent of a regular promissory note is to settle and pay some legitimate account or debt. But this is not so with that class of notes made and given only for accommodation purposes. They do not represent any business transaction between parties, no "value received," but simply an agreement to accommodate, or loan, a credit temporarily. They are not regarded with favor by banks, because their collection might give rise to legal questions touching their validity. Yet they are by no means uncommon, and often a source of great convenience in business. In general, a defect, such as a want of consideration, in a note does not affect a third party to it who has become an innocent holder. An innocent holder of a note is one who had no notice at the time he received it of any fact that would prevent the recovery of its full value by any of the parties whose names preceded his on the note. If such a holder has paid for the note, he holds it for full value, which he can recover.



$125 00/100 Nightstown, N.J. 1st August 1908

One day after date I Promise to pay

to the order of Samuel MacIver

One hundred and twenty five 00/100 Dollars

at THE FIRST NATIONAL BANK OF NIGHTSTOWN.

Value received.

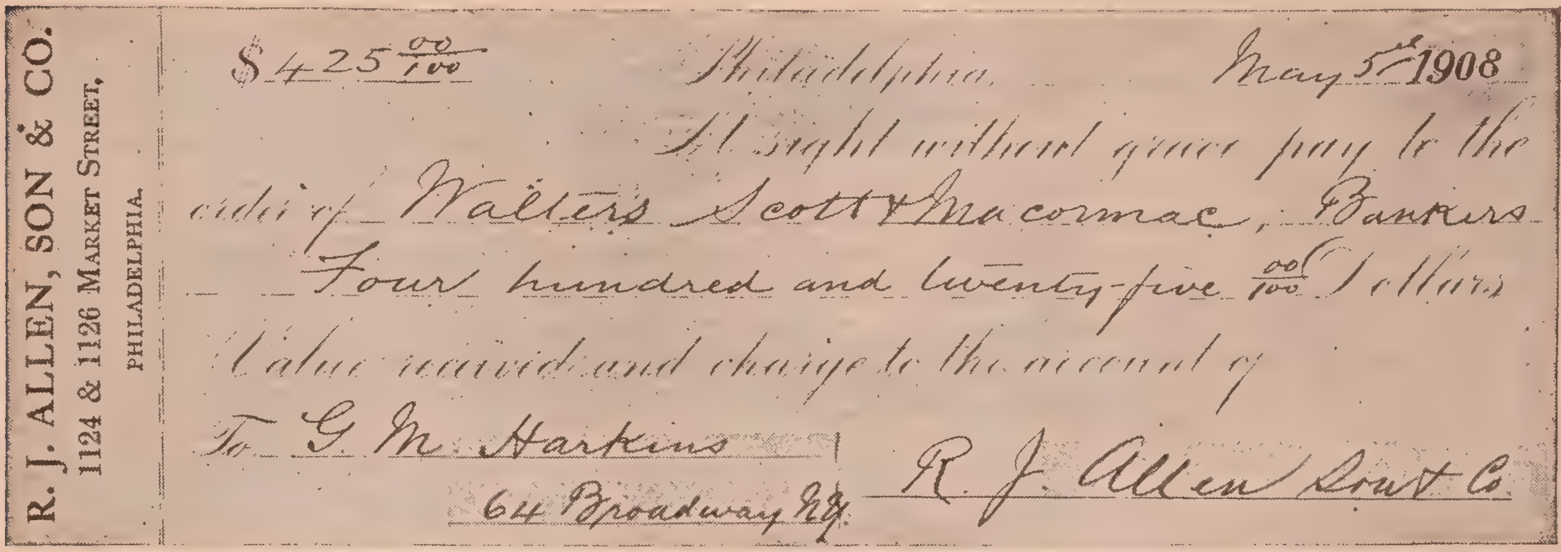
No. 12 Due Aug. 19th 1908 Francis M Keith

Joint Notes.—Notes may be made by more than one person. If two or more parties join to make a note, and it reads, "We jointly and severally promise to pay," each maker is bound individually for the whole amount. If it reads, "We promise to pay" it is simply a joint note, and each maker is liable only for his share of it. If a note have two or more signers, but reads, "I promise to pay," the first signer is generally construed as the maker, and the rest as sureties, who are not required to pay till all legal means have been exhausted to collect from the first signer or principal. The giving of a note in settlement of a claim makes it difficult to contest the validity of the claim. On the other hand, a fraudulent maker may take advantage of the running time to dispose of his property, or place himself beyond the jurisdiction. A holder of a note not payable at a bank should present it for payment immediately on its falling due, and if payment is refused he should send word by mail to all the parties before him on it that it is due and that payment has been refused. A maker's mark is a good signature to a note, provided it is witnessed. A valid note requires a competent maker, one not a minor, nor mentally disqualified. For further treatment of notes and negotiable paper see the article MANUAL OF LAWS AND LEGAL FORMS.

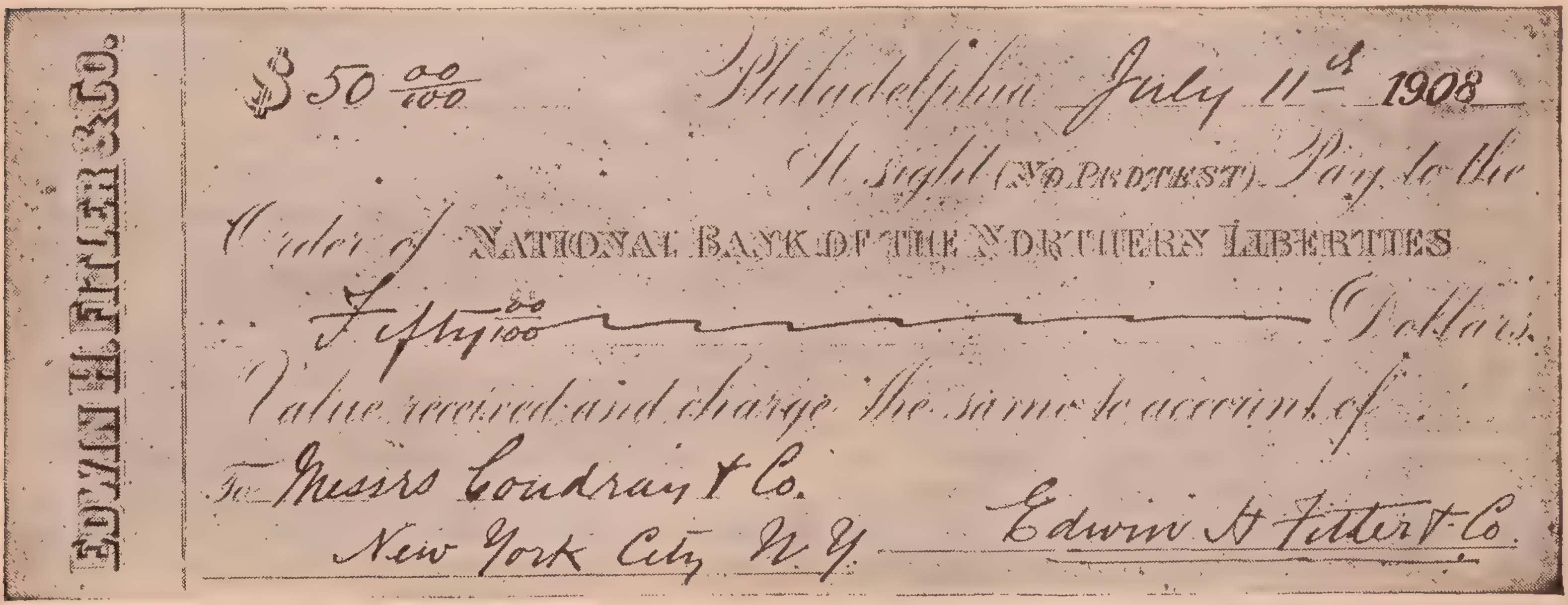
Endorsement.—Like a check a note is transferred by writing the holder's name on its back. Such writing is a guarantee of payment. Note endorsements are generally in blank; that is, the simple signature without the words "Pay to the order of." This leaves the holder free to transfer it without endorsement if he can do so. Any endorser who pays a note has a claim against every endorser ahead of him on the note. If an endorser writes the words "without recourse" with his name, he absolves himself from liability.

The Draft and Its Uses.

In connection with checks you have had a glimpse of the form of a common draft and have learned something of its uses. Here you have a fuller description of a draft in its larger commercial aspects. The commercial draft, as you see from the form here presented, is nothing more than an order or letter from one person (creditor) to another (debtor) asking that money due be paid to a caller, or to his bank or institution. In commercial usage this order or letter is given a stated form for convenience sake, the name of the one for whom it is intended usually appearing on the lower left-hand corner. Such drafts are usually sent through banks, though they may be mailed directly to some bank for collection. For instance if John Doe of Philadelphia owes Richard Roe of Chicago a certain amount of money, Richard Roe may draw his draft on John Doe for the amount and place it in a Chicago bank to be sent, or he can mail it directly to a Philadelphia bank for collection.

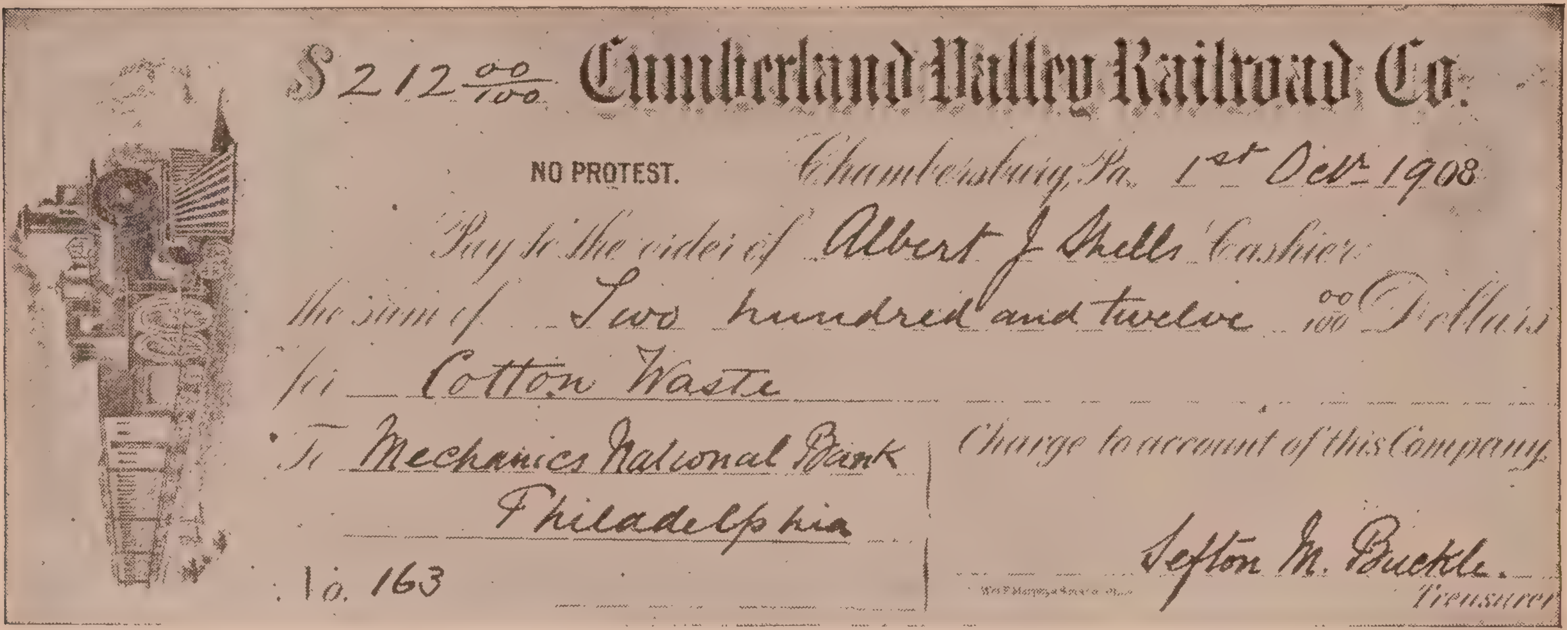

R. J. ALLEN, SON & CO.
1124 & 1126 MARKET STREET,
PHILADELPHIA.

$425 00/100 Philadelphia May 5th 1908
At sight without grace pay to the
order of Walters Scott & Macormac, Bankers
Four hundred and twenty-five 00/100 Dollars
Value received and charge to the account of
To G. M. Harkins
64 Broadway N.Y. R. J. Allen Son & Co.


EDWIN H. FITLER & CO.

$50 00/100 Philadelphia July 11th 1908
At sight (NO PROTEST) Pay to the
Order of NATIONAL BANK OF THE NORTHERN LIBERTIES
Fifty 00/100 Dollars
Value received and charge the same to account of
To Messrs Coudray & Co.
New York City N.Y. Edwin H Fitler & Co.

Draft Features.—It is the commonest of commercial proceedings to collect moneys between distant places by means of drafts, and for the purpose of carrying this useful work on to the satisfaction of all parties, various modifications of the plain order or letter are sometimes used. Thus, in the above form we saw the word "at sight" introduced. This is the equivalent of "on demand" in a note, or of the very spirit of a check, which, as we have seen, is payable on demand. So, we also saw the words "without grace" introduced. This is necessary at times as a notice that the State in which the draft is drawn has abolished days of grace, and that its commercial usage is not to reckon them. Also in the form here presented we notice the words "no protest." This is intended only for the banker, as a notice to him that the drawer of the draft has confidence in his debtor, or does not wish to saddle him with the costs of protest, or does not wish to injure his credit by publicity of his failure to pay. So, there are time drafts, in which the request is to pay a certain number of days after sight. (*Another form of draft.*)



Dollars 212 00/100 Cumberland Valley Railroad Co.

NO PROTEST. Chambersburg, Pa. 1st Oct. 1908

Pay to the order of Albert J. Shells Cashier

the sum of Two hundred and twelve 00/100 Dollars

for Cotton Waste

To Mechanics National Bank
Philadelphia

Charge to account of this Company

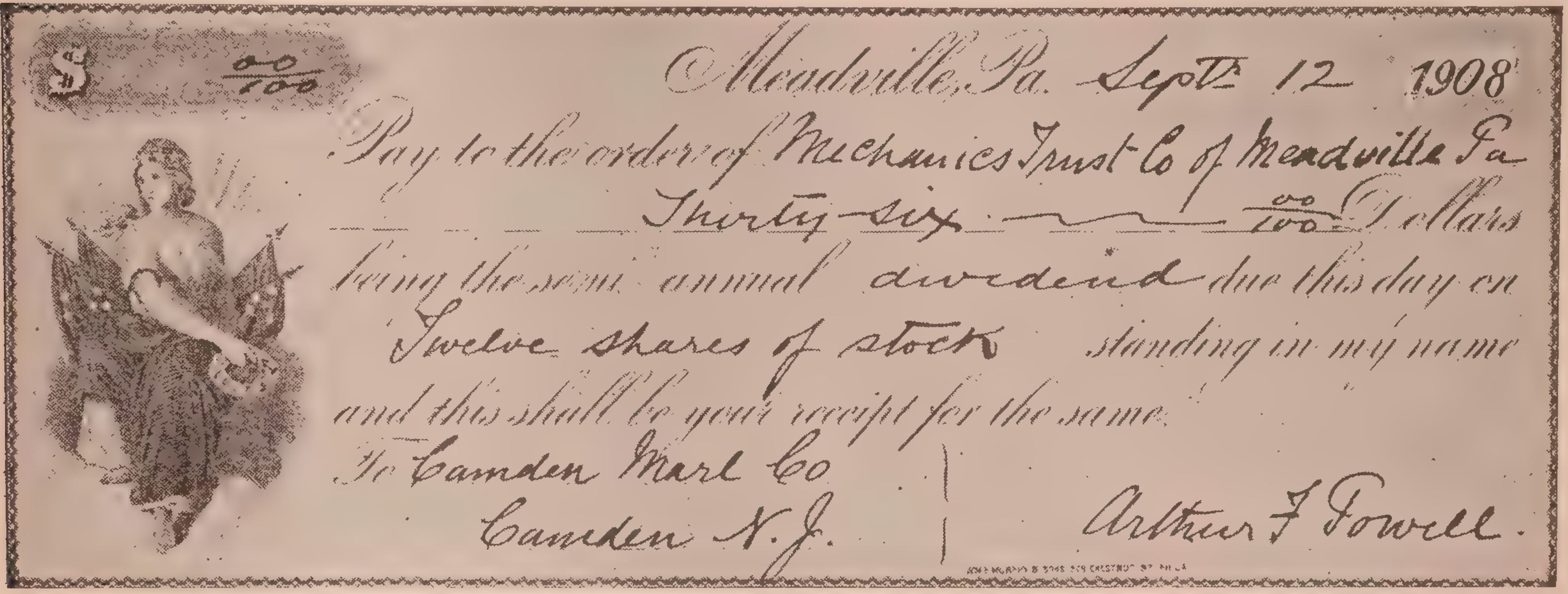
No. 163

Sefton M. Buckle.
Treasurer

Process of Draft Collection.—Let us suppose that the Richard Roe's draft, above mentioned, has reached a bank in Philadelphia. The bank sends its messenger with it to John Doe, who, if he finds it a sight draft, may honor it immediately and keep the draft as his receipt. If it is a time draft, that is, an order or letter to pay after a certain number of days, John Doe, if he accepts it, writes the words "accepted" with his signature and date across its face, and hands it to the messenger for return to the drawer. This act is John Doe's acceptance or honoring of the draft, and it has the effect of converting the paper at law into a promissory note, payable at the expiration of the time mentioned in it. It will be seen that this collection procedure by draft has many advantages over the check, for John Doe has, in all probability, acted more promptly than he would have done had he been requested to send his personal check by mail; he had his credit to sustain with the interested bank or banks; moreover, one's personal check is by no means the safest thing in the world to trust to the mails. Without full knowledge of John Doe's commercial standing, or without authority from his bank, the messenger would not have been justified in taking John Doe's check in payment of the draft, for he already held in hand a preferable paper; but if John Doe had added to his acceptance on the face of the check the words "payable at (his own) bank," then it would have become the equivalent of his check, and would have been charged against him when his bank paid it on presentation. While many business men and commercial houses are in the habit of collecting drafts through their home banks, many others prefer to send them to banks and institutions in the neighborhood of the debtor's residence. It is a growing custom to make draft collections through the express companies in small towns and where the amounts are small. It is a custom, based on courtesy, with many commercial houses to send a notice to debtors in advance that they will be drawn upon in a stated number of days if. in the meantime, the account has not been paid; but without this, it is a well established law of trade that at the expiration of the usual trade credits a sight draft is in order and must be expected. Among such trade laws, regulations or customs are the allowance of stated discounts for cash payments; the counting of payment within a certain time as, say, 10, 20, or 30 days, as net cash; the honoring of monthly credit accounts within the early days of the subsequent month. It is a common business procedure for the drawer of a draft to get it discounted before it is accepted, if he is in immediate need of money. In such instances the amounts are usually of considerable size, and accompanied with some form of security as collateral. A bill of lading is a common form of such security, especially where the shipments are large and from remote quarters, as those of cattle from the ranges, and of beef for Eastern consumption or export.

The Bill of Lading.—A bill of lading is so general and acceptable a security that, though properly belonging to transportation, its nature and function may be mentioned here. It is the acknowledgment of the railroad, express, ship, or any common carrier, that goods have been received for shipment. The shipper's name, kind of goods, destination and usual exemptions claimed by the carrier are all mentioned therein. At law it affords a high class of evidence, and in the commercial world it passes by endorsement and delivery all vested and contingent rights of action to the endorsee. Upon assignment it transfers the title to the goods, but not a claim for damages, if any. See further, article Manual of Laws and Legal Forms.

Orders.—A simple and common form of business procedure is the issue of one's authority by an order. No particular form need be adhered to, especially in store orders, where generally all parties are well known, and where a credit is loaned only to a limited amount. Orders, however, take on stated form and become of greater legal moment where they create an agency, as when issued to a stock broker ordering him to buy or sell stocks, or to a banking or corporation official in the following form and for the following purpose:



$ 00/100 Meadville, Pa. Sept. 12 1908

Pay to the order of Mechanics Trust Co of Meadville Pa

Thirty-six 00/100 Dollars

being the semi annual dividend due this day on

Twelve shares of stock standing in my name

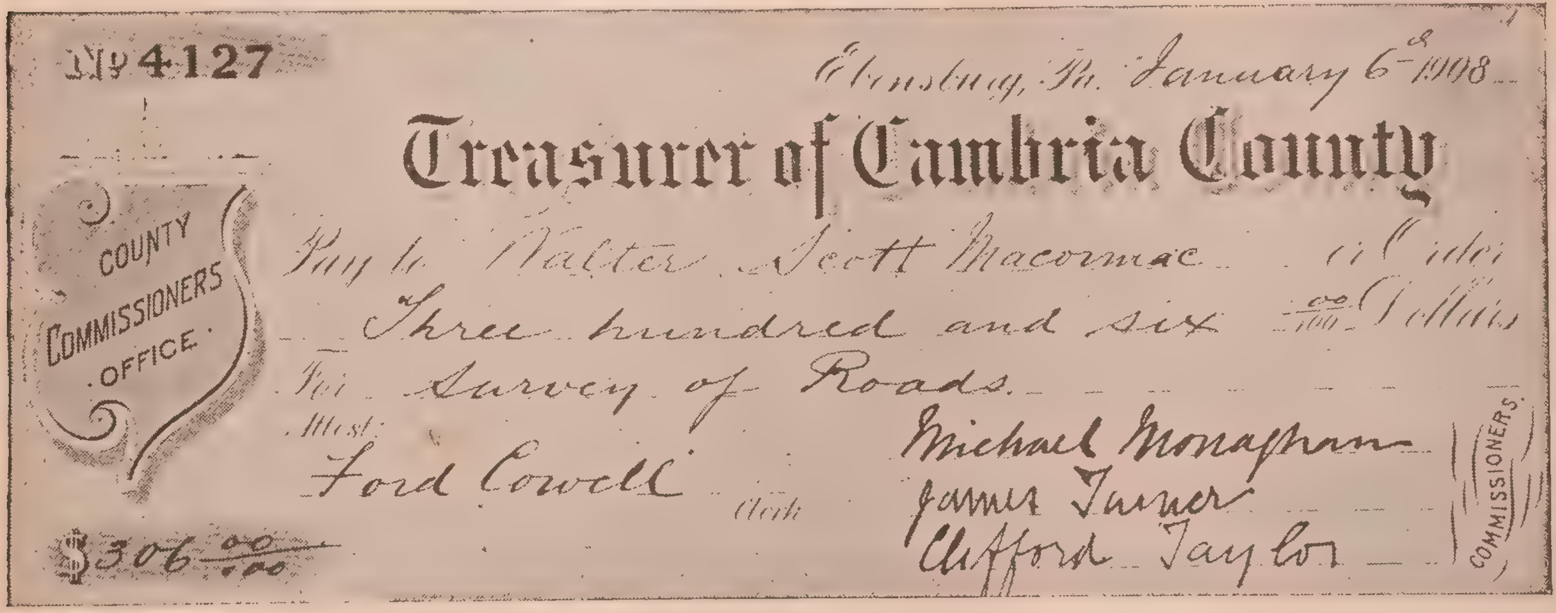
and this shall be your receipt for the same.

To Camden Marl Co

Camden N. J.

Arthur F. Powell.

A still higher form of order (see below) is one issued by a public official like a county commissioner upon a county treasurer to pay out money. This form approaches the legal solemnity of a draft and may well take on negotiable form.



No 4127 Ebensburg, Pa. January 6th 1908

Treasurer of Cambria County

COUNTY COMMISSIONERS OFFICE

Pay to Walter Scott Macormac or Order

Three hundred and six 00/100 Dollars

For Survey of Roads.

Attest:

Ford Cowell Clerk

Michael Monaghan

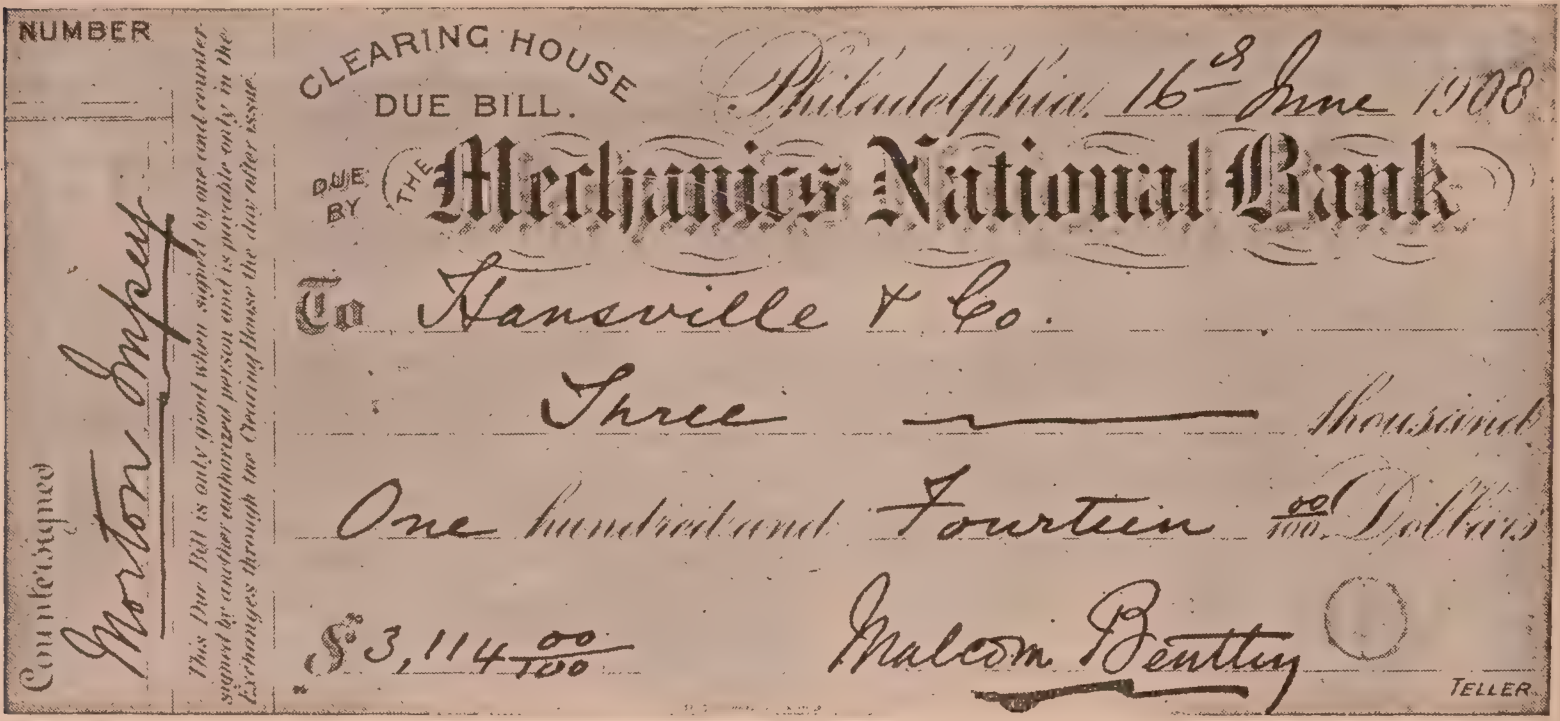
James Turner

Clifford Taylor

COMMISSIONERS

$306 00/100

Due Bills.—These are simple confessions on paper, without regard to formality, of a debt due, and to whom. They are also evidences of the debt and may be so used in court. They are not negotiable, and may be paid either in money or other commodity. A very common form of due-bill is a simple I. O. U. Like receipts, they are explain-able at law upon inquiry into the nature of the consideration, etc. See herewith form of Clearing House Due Bill.



NUMBER

Countersigned Morton Impey

This Due Bill is only good when signed by one and counter-signed by another authorized person and is payable only in the Exchanges through the Clearing House the day after issue.

CLEARING HOUSE DUE BILL.

Philadelphia, 16th June 1908

DUE BY THE Mechanics National Bank

To Hansville & Co.

Three ——— thousand

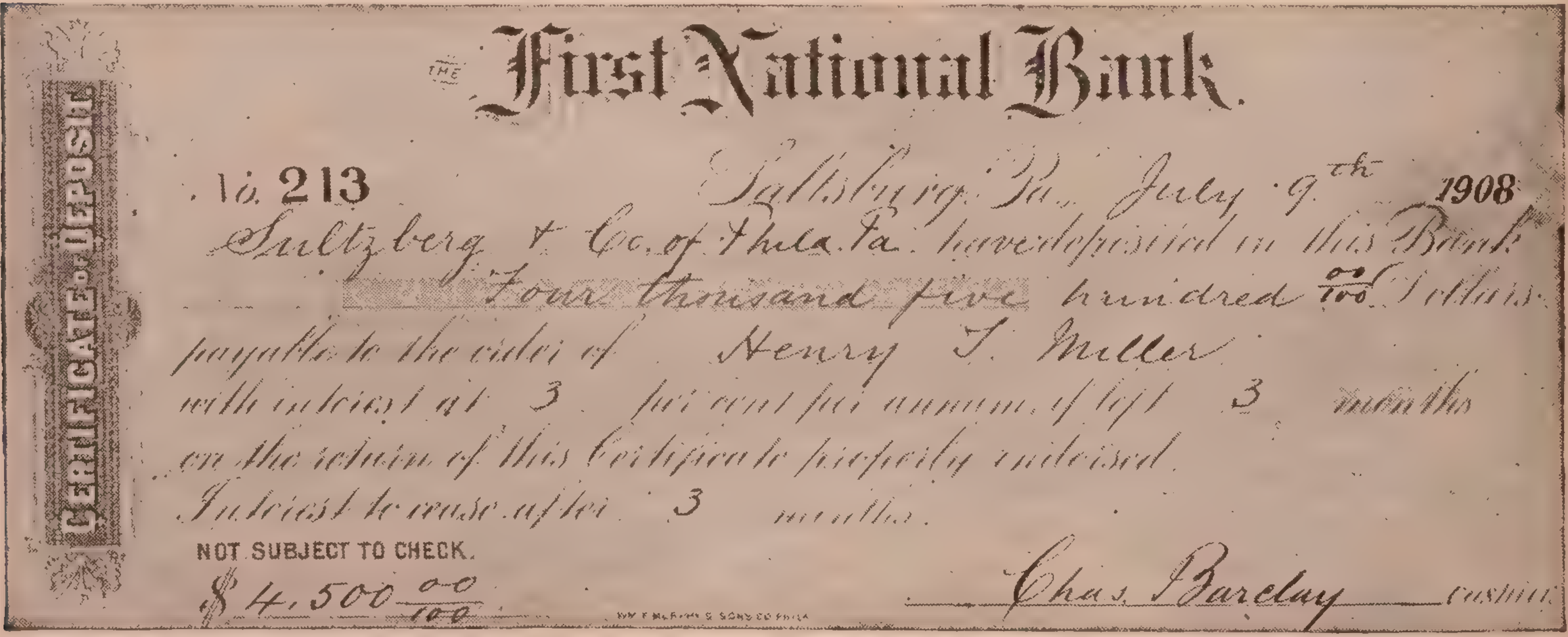
One hundred and Fourteen $\frac{00}{100}$ Dollars

\$3,114 $\frac{00}{100}$

Malcom Bentley

TELLER.

This form of due bill is specially drawn, and has a well understood function in business circles.



CERTIFICATE OF DEPOSIT.

THE First National Bank.

No. 213 Saltsburg, Pa., July 9th 1908

Sultzberg & Co. of Phila. Pa. have deposited in this Bank

Four thousand five hundred $\frac{00}{100}$ Dollars

payable to the order of Henry T. Miller

with interest at 3 per cent per annum, if left 3 months

on the return of this Certificate properly endorsed.

Interest to cease after 3 months.

NOT SUBJECT TO CHECK.

\$4,500 $\frac{00}{100}$

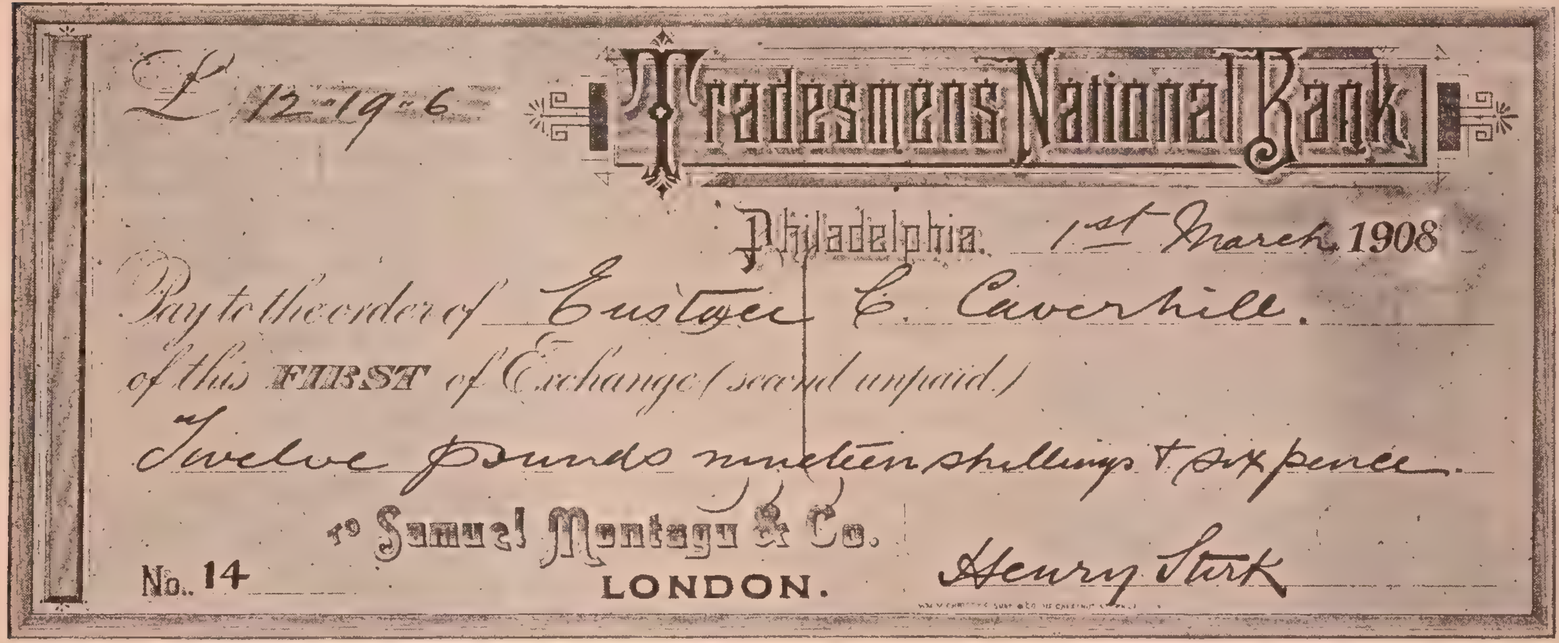
Chas. I. Barclay Cashier

Certificate of Deposit.—A certificate of deposit, of which the following is a usual form, is a paper issued by a bank, trust company or other institution affording evidence to a depositor of the amount of his deposit and of the time and conditions of its return. It makes the custodian of the funds a debtor, and his legal responsibility quite like that assumed by the maker of a promissory note. Certificates of deposit are generally drawn to order and are therefore transferable by endorsement as negotiable paper. They are usually given where money is deposited for a stated length of time, and therefore such deposits cannot be checked against, unless conditions for doing so are provided in the certificate. They mostly provide for interest, the rate being specified. When due, they are collectible as a promissory note. They are a favorite paper with those who have money by them for which they have no immediate use, and who yet wish to be provided against a contingency. A certificate of deposit may be used instead of a draft for paying distant bills.

Interest is the payment for the use of money. Borrowers pay interest to lenders, and usually debtors to creditors for detention of debts. Interest is payable only on contract express or implied. In express contracts to pay interest, the rate is usually fixed in the instrument; in implied contracts the rate is usually the legal one. Banks pay no interest on their deposits, except by agreement. Money voluntarily left by one with another draws no interest, if there is no agreement that it shall. Demand notes draw interest after demand made; promissory notes after they fall due; accounts stated after demand. See article MANUAL OF LAWS AND LEGAL FORMS.

Bills of Exchange.

A bill of exchange is an order from A. to B., directing B. to pay to C. the amount of money therein named. It is a common means of canceling a debt without the transmission of money where the debtor and creditor are residents of different countries, or where they live far apart in the same country. In the former case a bill of exchange is called "foreign," in the latter "domestic." Both are subject to the same general principles of construction, except as to protest. Foreign bills of exchange are usually drawn in sets of three (for form see article MANUAL OF LAWS AND LEGAL FORMS) and domestic in sets of two, as in the form herewith:



£ 12-19-6

Tradesmens National Bank

Philadelphia. 1st March 1908

Pay to the order of Eustace C. Caverhill.

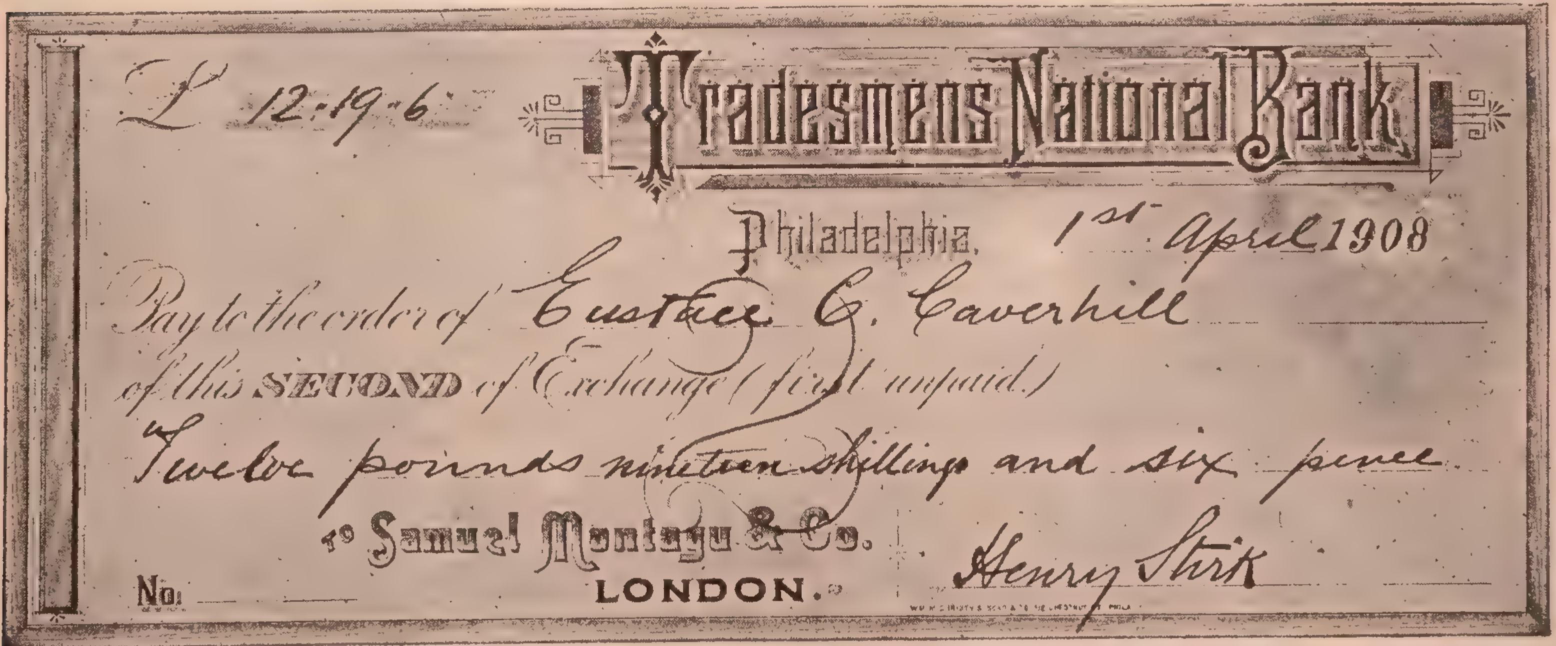
of this FIRST of Exchange (second unpaid)

Twelve pounds nineteen shillings & six pence

to Samuel Montagu & Co.
LONDON.

No. 14

Henry Stirk



£ 12-19-6

Tradesmens National Bank

Philadelphia. 1st April 1908

Pay to the order of Eustace C. Caverhill

of this SECOND of Exchange (first unpaid)

Twelve pounds nineteen shillings and six pence

to Samuel Montagu & Co.
LONDON.

No.

Henry Stirk

In procuring his bill of exchange, A. has to pay the current rate of exchange, which is usually a daily quoted rate in the money centres; that is, if the pound sterling has a value of say $4.86 he may have to pay at the rate of $4.86½, the difference being the rate of exchange, or the commission. So, he would have to pay an exchange on a domestic bill, which is usually a percentage amounting to something less than the cost of transmitting the money by express. The use of bills of exchange is a very ancient one. The principle of acceptance and further collection of a bill of exchange differs but little from that of a draft, which it closely resembles, and which has already been treated of.

Credit Letters.—Were it not for this convenient form of establishing a credit abroad, travelers would be compelled to carry sufficient money with them to make purchases and pay their expenses. In order to get a letter of credit the intended traveler abroad goes to a home banker who has a large list of correspondents in a foreign country and places in his hands the amount he wishes to appear in the letter. Thereupon, the banker issues to him an order on his foreign correspondents to pay to the bearer, whose name appears at the bottom of the order, such part or parts of the sum named as he may ask for. The correspondent bank in Berlin, London or elsewhere, makes the payment and enters the amount on the letter of credit, the bearer first giving him a draft for the amount upon the banker who furnished the letter of credit. Thus a traveler can establish a credit in any civilized portion of the world.

Insurance.

Principle.—Insurance is a contract whereby, for an agreed premium, one party undertakes to indemnify another against loss on a specified subject by specified perils. The party agreeing to make the indemnity is the insurer or underwriter; the party to receive the indemnity the insured; the premium is the agreed consideration; the written contract is called the policy. Insurers or underwriters are generally incorporated, and may be mutual companies, in which every policy holder is a member; or stock companies which insure for premiums all who pay such premiums. The systems of insurance have multiplied so rapidly of late years that risks are taken against fire, death, accident, disease, flood, hail, breakage, embezzlement, etc.

Kinds of Insurance.—Fire insurance is intended to meet losses to property by fire. The insurable value of a building or other property is generally what it would cost to replace it; but in fixing the rate of insurance the style, location, material and surroundings of property are all taken into consideration. Insurance in large amounts is generally effected through different companies and the losses are borne proportionally.

Marine insurance is against accident to ships and damage to cargo. There are underwriting companies for this purpose in the leading commercial cities, who classify ships and fix rates according to the classes. Insurance on vessels is for a voyage or a specified time, and on cargo for the voyage.

Life insurance is an agrement to pay the amount mentioned in a policy to the beneficiary mentioned therein on the death of the insured. The conditions of a life insurance policy are very specific. Every person has an insurable interest in his own life, and may have in the life of another who is a debtor or is under obligation. Life insurance is also conducted on the endowment plan; that is, a person may insure his life for a certain number of years, the sum mentioned in the policy to be paid to him if he is alive at the expiration of the time. If he has died in the meantime, the amount goes at his death to his beneficiary. In life insurance premiums are graduated according to age and life expectancy of the insured, the computation being made ready to hand in the mortality tables. Premiums on endowment policies are larger than on full life policies. Besides their income from premiums, life insurance companies derive large profits from temporary insurance, lapsed policies and judicious investments.

Accident insurance is against accident when traveling or otherwise. It is a comparatively new form of insurance, cheap and very popular. The time may be for a day, a trip or for an indefinite time. If death occurs by accident the amount mentioned in the policy goes to the beneficiary. If death does not occur but perpetual maiming, a specified sum is provided for. If only loss of time occur, such as time for recovery from a broken limb, a weekly payment is provided for during such time.

The various other kinds of insurance, against losses by hail, disease, embezzlement, etc., involve the same general principles as those already mentioned. They are mostly new and popular forms, and of great utility. In general, insurance companies are held at law to a strict adherence to their agreements, and the same may be said of the insured, for misrepresentation of any material kind on the part of the latter has the effect of voiding the policy.

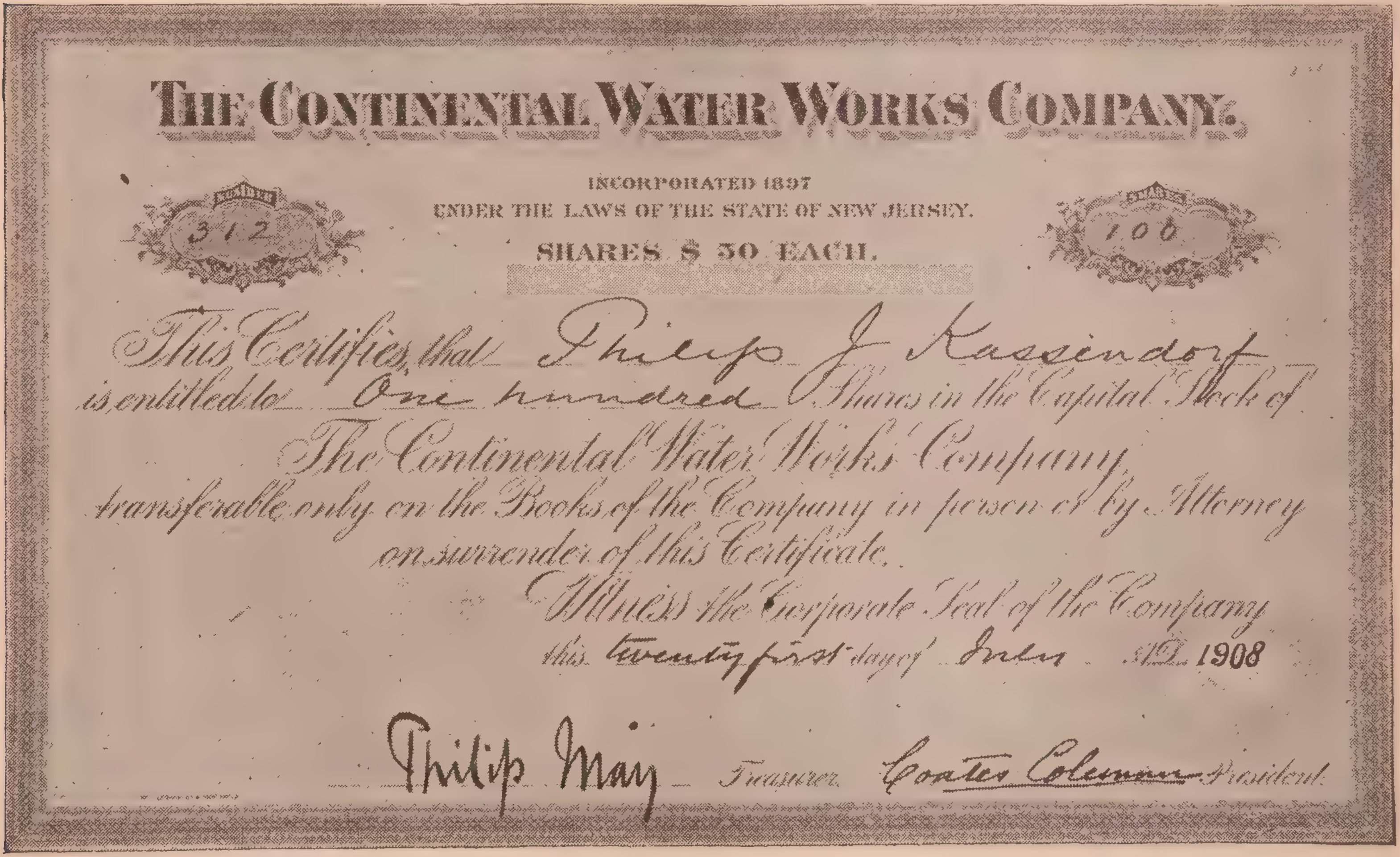
Partnerships.

These popular and useful combinations for business purposes are voluntary contracts between two or more persons for joining together their money, goods, labor and skill, or any or all of them, in some lawful commerce or business under an understanding expressly stated, or implied from the nature of the business, that there shall be a communion of profit and loss between them. For the forms, principles and responsibilities of partnership see article MANUAL OF LAWS AND LEGAL FORMS.

Securities—Bonds, Stocks, Etc.

Companies.—A company, or as the term goes, a stock company, is formed by a number of persons who apply to the Secretary of State of the State where the company wishes to organize, for a license or charter to conduct a certain business at a certain place, with the privilege of issuing a specified number of shares of stock at a certain par value. Its forms and responsibilities are regulated by the laws of the respective States. Each person who buys or subscribes for the stock receives a certificate therefor, of which the following is a usual form:

A stock owner or shareholder is a member of the company, and in part responsible for the management of its business. Shareholders meet periodically and elect directors, who attend to the direct work of managing the company, according to the constitution and by-laws and recognized business principles. A majority of shareholders may increase or diminish the capital stock, and may divide the stock into common and preferred, the latter so-called because it participates in the interest or dividends before the common stock. Directors foot up the profits of a company periodically and divide them among the shareholders in the shape of dividends. It is not always that a company issues all its stock. What is held back is retained in the treasury and is called treasury stock. Nor does a company always pay out all its profits in dividends. The part reserved goes to constitute a surplus fund for security sake, and is generally invested in good securities, in the interest of which the shareholders participate. A company sometimes guarantees the payment of a certain dividend on its issued stock. Such stock is called guaranteed stock. When a company, organized for a certain amount, increases that amount without adding to the number of its shareholders, it is said to water its stock. When a stock



THE CONTINENTAL WATER WORKS COMPANY.

NUMBER 312

INCORPORATED 1897
UNDER THE LAWS OF THE STATE OF NEW JERSEY.

SHARES 100

SHARES $ 50 EACH.

This Certifies, that Philip J. Kassindorf is entitled to One hundred Shares in the Capital Stock of The Continental Water Works Company transferable only on the Books of the Company in person or by Attorney on surrender of this Certificate.

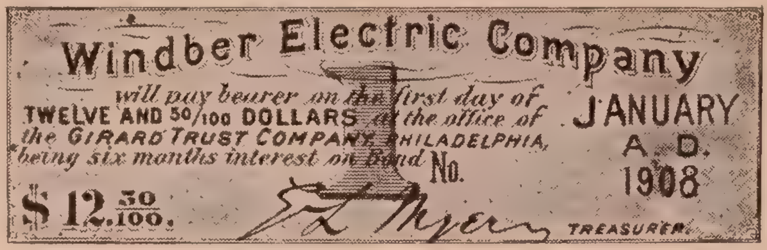
Witness the Corporate Seal of the Company this twenty first day of June A.D. 1908

Philip May Treasurer. Coates Coleman President.

company is chartered as a limited company it must print the word "limited" after its name. The meaning of this is, not that the capital is limited, but that the responsibility of a shareholder is limited to the amount of stock he has subscribed for. Certificates of stock are transferable by endorsement. It is very customary for a new company to issue its first stock upon conditional payments, as so much down, and the balance at certain stated periods, which the shareholder must observe or run the risk of a suit or forfeiture of his holdings. Again, it is common to issue first stock on payment of a part value down and with an understanding that as to the balance it shall be paid in the form of assessments. An assessment or call for an additional payment on stock applies to every stockholder.

Corporations.—These are but companies under another name, a chartered company being a corporation. The function and purpose of the corporation are, as a rule, the larger, less specialized. The power corresponds, being more elaborate, extending even to that of eminent domain, or power of condemning and taking private property for corporate uses, as with railroads. Corporations are chartered in the forms provided by the respective States or general government, or they may be the creature of a special legislative act. They are of two general classes—public or municipal, as cities and boroughs, in which all the citizens are members; private, or corporations for the emolument of its owners or shareholding members. They are moulded and controlled by their charters or acts of incorporation, and their usual powers are perpetual succession, to sue and be sued, to grant and receive grants, to purchase, hold and sell property, to have a common seal, to make laws for their government, to do all acts within the limits of their charters or acts of creation that a natural person may do. (See article MANUAL OF LAWS AND LEGAL FORMS.) This liability of the stockholders of a corporation is, as a rule, limited to their holdings. In joint stock companies, the members are partners.

Bonds.—To raise money for their development corporations of whatever kind place a general mortgage upon their property, against which they issue bonds which become a marketable security. Such bonds are bought and sold in the market the same as stocks, and as they have a high class interest bearing lien, they are desirable for permanent investment. They usually have attached to them a series of coupons like the one here shown, which represent the amount of interest due at stated times and which may be clipped off when due and presented for payment. Government bonds, State bonds, and municipal bonds are, as a rule, desirable investments. Corporation bonds can be issued only with the consent of the company's shareholders. Bonds run for stated times, and it is usual for corporations to place a percentage of earning annually into a sinking fund to meet the bonds at maturity. Interest on bonds must be paid, but a corporation may pass a dividend on its stocks.



Windber Electric Company
will pay bearer on the first day of JANUARY
TWELVE AND 50/100 DOLLARS at the office of
the GIRARD TRUST COMPANY PHILADELPHIA,
being six months interest on Bond No.
A. D. 1908
$12.30/100.
TREASURER.

Shipping and Warehousing.

Commerce has come to mean business or trade between nations foreign to each other. Large American buyers employ agents who go abroad, visiting foreign markets and buying goods of the kind desired. But many send orders by cable or mail. Such orders are called shipping orders.

Importation.—When a foreign house has received such an order, it makes three lists, called invoices, of the goods to be shipped, together with their prices. These are taken to the United States consul of, or nearest to, the place, and their truthfulness sworn to before him. The consul keeps one, gives another to the shipper, and mails the third to the custom house of the American port of destination. The shipper then sends his goods, carefully packed for an ocean voyage, to the transport ship, where he receives from the ship's agent triplicate bills of lading. One of these, together with the invoice with the consul's certificate on it, is mailed to the American house; the vessel keeps one; the third is held by the shipper. In this transaction the foreign house is known as the consignor and the home house as the consignee.

When the goods arrive at their American destination, they must be examined and entered according to the customs laws of the country, in order that the tariff or duty upon them, if any, may be collected. To facilitate such entry the consignee usually employs an agent, or custom house broker, who is familiar with the laws and forms of entry. If it is desired to enter the goods for immediate consumption, the broker makes a cash entry; that is, one specifying the goods, their value and the amount of duties due, which duties are paid in cash. If the consignee does not need the goods on their arrival, the broker enters them on a warehouse entry; that is, the duties are estimated as before but not paid, and the goods are held by the customs officers and deposited in a bonded warehouse, to be withdrawn on a withdrawal entry as the consignee needs them, and upon payment of the assessed duty on each withdrawal. But the consignee must give bond to the government that he will pay the duty within three years, or export the goods. But in the passage of the goods thus far through the custom house, the officials have made only first or provisional estimates. They have, however, prepared for second or liquidated figures, by sending specimen cases of the goods together with the invoice to the appraiser's stores, there to be opened, examined and appraised by that official. If he finds the invoice price correct, the invoice is passed back to the custom house without change; but if the valuation in the invoice is found to be too low, or the right duty has not been assessed, the appraiser corrects the error, marks the correction on the invoice, and returns it to the custom house, where the original entry is liquidated and the duty thereon corrected. If the duty has been increased, the consignee is notified and must pay the additional; if the duty has been lowered, the government pays the consignee his refund.

Goods destined for cities in the interior may be bonded in cars at the port of arrival, and withdrawn therefrom, as if from a bonded warehouse, at their place of destination. When no invoice has been received by the consignee he may, on presentation of his bill of lading, make up a provisional invoice if he can, and enter his goods, but he must give bond to produce a regular certified invoice as soon as it arrives. Goods of very small value—under $100—may be entered without invoice, subject to the appraiser's valuation and assessment of duty.

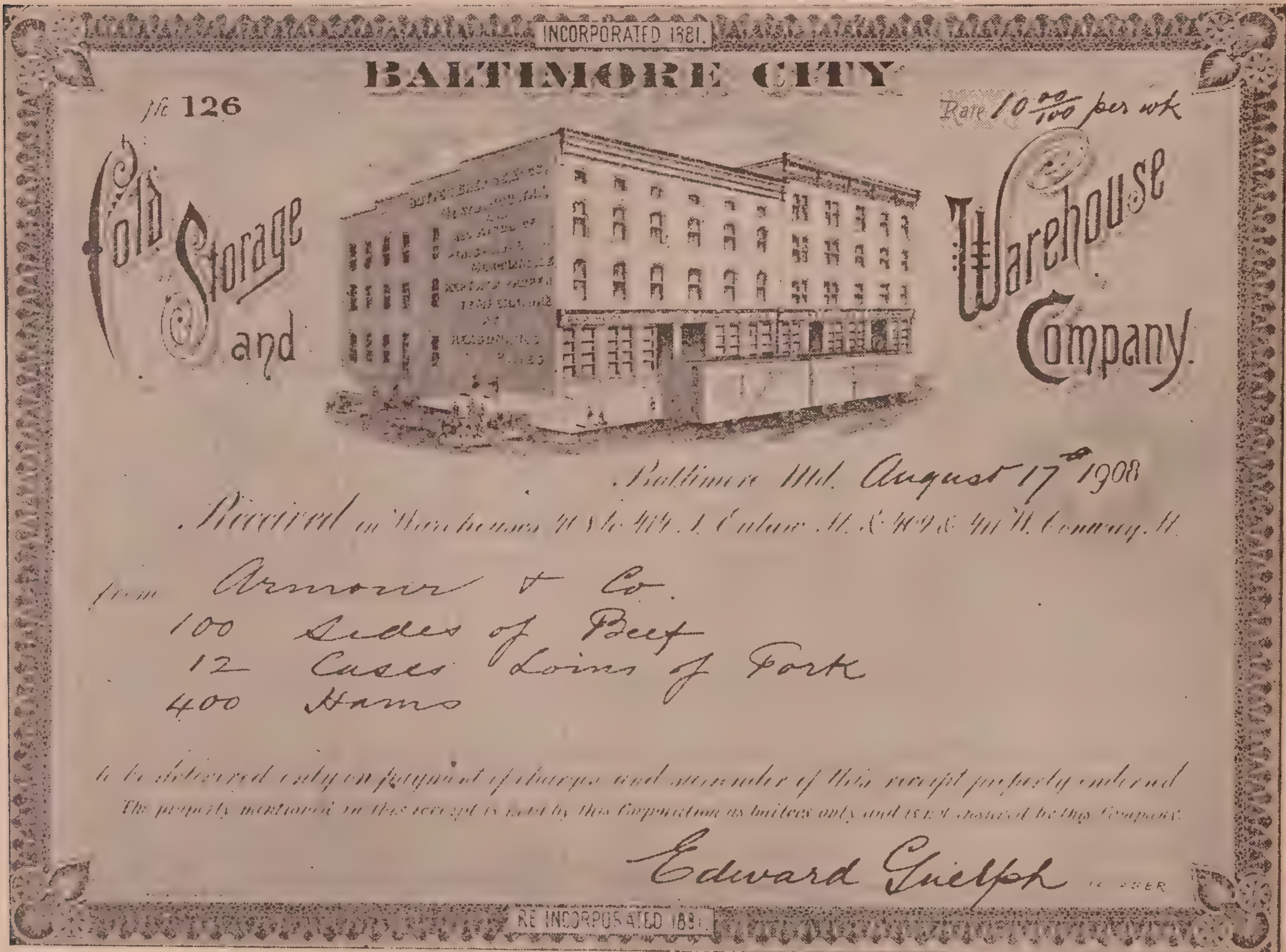
Exportation.—In shipping goods from this to a foreign country, the shipper must prepare a list and description of them, and swear to it before a custom house official. This list is called a "manifest." On presentation of the manifest properly prepared and sworn to, the owner or agent of the ship will issue to the shipper a bill of lading in ordinary commercial form. When the manifests, representing the entire cargo of the ship are seen to be in lawful shape, the collector of the port issues a clearance order, which permits the ship to depart with the goods. If any of the goods exported are manufactures of those the shipper had previously imported and paid duties upon, he is entitled to a refund of such duties, less a small per cent in favor of the government. This refund is called a "drawback." Of late years the value of exports from the United States have largely exceeded that of the imports. This is regarded as a favorable commercial condition, and the term used in connection with it is "that the balance of trade is in our favor."

The Warehouse.—We have already seen that the government supports a system of bonded warehouses in the various customs districts, into which it enters imported goods, to be withdrawn by importers as they need them, and upon payment of the assessed duty and other charges at the time of withdrawal. There are also private bonded warehouses for the same purpose, but subject to government supervision. These issue what are called warehouse receipts to importers of goods which are deposited with them. Such receipts are generally drawn in negotiable form, and become a very convenient paper in the hands of a holder as money can be raised on them without removal of the goods. If the goods are sold while in a private bonded warehouse, the transfer of the warehouse receipt by the seller transfers the title. The general warehouse system has grown to immense proportions in late years. There exist in every business centre warehouses, in which property of any and every kind is received on storage, at a moderate rate of pay. These issue their receipts when the property is stored. The usual form is shown on next page.

They are transferable, as a rule, by endorsement and the holder has title to the property. The storage company has a lien on stored property for the cost of storage, and may sell it when the storage charges amount to the value of the property. All leading railway and transportation companies have warehouses for the storage of freight. The great elevator companies of commercial cities are but warehousing companies for the storage of grain and other products. So, there has come into existence a vast system of cold storage companies, which provide storage for meats, fruits, vegetables, and other perishable articles, agreeing to provide for them a keeping or preserving temperature for the requisite length of time.

Water and Land Transportation.

Transportation by Water.—Ocean transportation has been in part described under the head of shipping. The highest type of the ocean transport is the steamship. Ships, of whatever kind, owned by American owners must be registered at some port. The same regulation holds in every commercial country. When a ship is sold, the title passes by means of a bill of sale, because a ship is personalty. This evidence of title is recorded at the place where the ship was registered. The general laws of ocean carriage are partly local and partly international or common. The captain of a ship is the supreme officer. Passengers and crew must obey him. He must have shipped his crew in accordance with customary shipping articles, specifying the precise voyage and rate of pay. As to manifest of cargo, clearance and entry, etc., see SHIPPING, *ante*. Sailing vessels have right of ocean way over steamers. The law of "to the right" regulates the course of two meeting sailing vessels when both are sailing under the same conditions; otherwise the free sailer must give way to the close-hauled sailer. The law requires a ship to keep a minute history of its voyage, cargo, list and address of passengers, destination, courses, latitude and longitude, sea interviews, land sightings, etc. A captain's power, when his ship is in distress, extends to the cargo, which he may lien or throw overboard, to save his ship and passengers. Arriving ships must take on port pilots, who relieve the captain of all responsibility. At all important ports of entry are stations under control of boards of health or physicians. Arriving ships must stop at these stations, called quarantines, must be inspected, and secure a clean bill of health, before proceeding to enter further.


INCORPORATED 1881.

BALTIMORE CITY

No. 126

Rate 10 00/100 per wk

Cold Storage and Warehouse Company.

Baltimore Md. August 17th 1908

Received in Warehouses [illegible] Eutaw St. & 409 & 411 W. Conway St.

from Armour & Co.
100 Sides of Beef
12 Cases Loins of Pork
400 Hams

to be delivered only on payment of charges and surrender of this receipt properly endorsed.
The property mentioned in this receipt is held by this Corporation as bailees only and is not insured by this Company.

Edward Guelph Keeper

RE INCORPORATED 1881.

Land Transportation.—This embraces that business which is conducted through the agency of what in law are designated as common carriers, to whom are affixed by statute and custom certain responsibilities, and in whom repose certain rights and privileges. The common carriage system embraces the transportation supplied by railroads, steamboats, ferryboats, canal boats, express companies, stages, etc., and common carriers must hold themselves at the call of those who wish to employ them, within a reasonable time, at a reasonable pay, and with the implied pledge that they will exercise due care. They can be held in damages for negligence and loss, or for any violation of the business conditions under which they are permitted to exist. They issue bills of lading on the receipt of goods for export, and agree to deliver in safety and on time, on payment of charges. But where the distance is short and the value of the goods small they issue only receipts for the goods, which are the equivalents of bills of lading, except that they are not negotiable, and therefore not a security which can be used collaterally. When goods for shipment are received in a damaged condition by a common carrier, he should note the defect on the bill of lading or receipt, in order to absolve himself from future liability. A shipper who does not happen to know the name of his consignee at the time of shipment, may procure a "deliver to order" paper, which will secure the delivery of the goods to the person who presents it in company with the endorsed bill of lading. The carrier of goods is always put in possession of a memorandum of them, showing character, weight, marks, designation, car number, shipping point, destination, freightage, etc. Such memorandum is called a way-bill, and it is numbered. Freight rates are adjusted according to the goods carried. For the purpose of rating freights, goods are classified, according to their bulk, quality, perishability, etc., and take rank as first, second, or third-class commodities. Delivery of goods is contingent on the presentation of the bill of lading by the consignee at the place of destination. Delivery may be refused till all charges are paid. Through competing roads were in the habit of adjusting freight rates by an agreement called "pooling," but this has been decided to be illegal, as voiding the natural effects of competition. The national law known as the "Interstate Commerce Act," was designed to assist commerce between the States by the establishment of uniform through rates of carriage. Passenger rates are usually based on mileage, and are quite uniform at about 3 cents a mile, with round-trip and commutation reductions. Mileage-book tickets are coming into great favor. Generally speaking, railways have arrangements by which they pass their passengers to any destination, the ticket having coupon attachments which are torn off by the intervening roads. Passengers are entitled to free carriage of a certain amount of baggage, usually measured by weight. For this baggage they receive numbered checks, upon whose presentation at the point of destination their baggage will be delivered to them. Baggage overweight is charged for; and so, storage is charged if baggage is not called for within a stipulated time.

Express and Mail.—A quick, safe, but more costly transportation service, through the agency of express companies, has grown into great proportions in the United States. These companies hire a right of way over the railway, steamboat and other lines, and sometimes place their own equipments thereon. They co-operate with one another, and consequently reach all destinations. They give receipts instead of regular bills of lading, and the consignee must receipt to the company on delivery of the article. They ship either on prepayment of the rate, or payment on delivery. In the latter case the invoice or way-bill is marked C. O. D. which means "collect on delivery." Much money is shipped from one centre to another by express, its delivery being guaranteed in the same condition as when received.

Transportation of mail in the United States costs an immense sum annually. There is a special mail service by railroads and steam vessels, and a general service which does not limit the method of transportation, all operating under contracts with the government. The general service is sometimes spoken of as the "Star route service." The government is recompensed for its mail service by the sale of postage stamps and by certain pound rates, but the income from these has never yet equalled the expenses of the post office department. In carrying money or valuables by mail the government will, if required, register the package for a small fee. This does not guarantee against loss, but is an earnest that the government will make special effort to trace the package in case it is lost. The government also transmits money by means of money orders, obtainable for a small sum at any money-order office, and payable at similar offices to which the orders are sent. Express and telegraph offices also use a system of sending money by means of negotiable orders, which are very convenient. Package or parsel deliveries are quite common, especially in the suburbs of large towns. The rate is usually moderate and is regulated according to distance and size of package.

Dictionary of Business Terms.

Acceptance.—When the drawee of a draft writes the word "accepted" across its face, with date and signature, it is his agreement of acceptance.

Acceptance Supra-Protest.—An acceptance of a draft by a third party after protest, to save the honor of the drawer or some endorser.

Accommodation Note.—A note given to one without a consideration for the purpose of enabling him to raise money.

Accrued Interest.—The current interest due on interest-bearing paper, but not payable till the time fixed in the paper.

Acknowledgment.—The certificate by signature to the genuineness of a document for record, made before an authorized official.

Actuary.—A managing or computing officer of an insurance company.

Ad Valorem.—According to value; said of duties levied upon the value, and not the weight, of an article.

Adventure.—A venture or speculation.

Advice.—A letter or telegram conveying mercantile information.

Affidavit.—A sworn statement, made before a competent official.

Afloat.—Goods afloat are those in port but still in the vessel.

Agent.—One authorized to act for another.

Allonge.—Paper pasted to a note to receive endorsements when the back of the note is full.

Annuity.—Annual money due and payable as the proceeds of a gift or of a principal sum received.

Antedated.—Paper dated ahead of its real time.

Appraisement.—Setting a value on property or goods.

Arbitration.—Determining by persons mutually chosen by disputants.

Assessment.—A call on stockholders to pay additional money on their holdings.

Assets.—Goods or property available for the payment of debts.

Assignment.—A debtor's transfer of property to an assignee for the benefit of his creditors.

Association.—An organization for a common object.

Attachment.—Taking and holding of goods by legal process; also the writ.

Audit.—To verify accounts by examination of entries and vouchers.

Bale.—Market form of raw cotton, usually 500 pounds.

Bank Note.—The demand note issued by a bank as money.

Bankrupt.—An insolvent person or corporation.

Barter.—To trade by exchange of commodities. instead of money.

Bear.—One who seeks to lower market prices.

Bill.—A written statement of articles sold.

Bill of Exchange.—The set (usually three) of drafts drawn for foreign purposes. Domestic or inland bills of exchange (usually two) are drawn between remote parts of the same country.

Bill of Lading.—A transportation company's negotiable receipt for goods delivered for shipment.

Bill of Sale.—A written instrument by means of which title to goods and chattels is conveyed.

Block.—A bunch or lump of shares of stock, and bought or sold in such bunch, lump or block.

Board of Trade.—An association of business men who voluntarily look to the commercial interests of their locality.

Bona-fide.—In good faith.

Bond.—A sealed instrument binding the maker to do or not to do what is specified in it; also a certificate of ownership issued to a holder of a mentioned part of the secured indebtedness of a corporation.

Bonded.—Goods deposited in a bonded warehouse till withdrawn on payment of duties, are said to be in bond, or bonded.

Bonded Warehouse.—The government, or private, bonded warehouse in which goods are stored upon entry till withdrawn on payment of duty.

Bonus.—The premium or extra sum paid on a loan.

Boom.—Sudden inflation of values and rush of business.

Bottomry Bond.—The lien on a vessel to secure money advanced to its master.

Brand.—Class or kind of goods; one's trademark.

Broker.—An agent for another in the buying and selling of articles or property on commission.

Brokerage.—A broker's fees; also, his business.

Bucket Shop.—The illegal or covert place where bets are made on fluctuations of stocks and other securities.

Bull.—One who manipulates the market for higher prices; opposite of bear.

Bullion.—Gold or silver in bars.

Call.—Right to buy at an agreed time and price.

Call Loans.—Loans of money made to be paid at the call of the lender.

Capital.—Money or property invested in business.

Cashier.—The bank officer who has charge of the cash.

Cental.—One hundred pounds avoirdupois.

Centime.—One-fifth of a cent.

Certificate.—Written attestation of a fact.

Certified Check.—A check on which the bank has written or stamped a certificate of genuineness.

Charter.—Authority for the existence of a corporation. Engagement to lease a vessel for a voyage.

Chattel.—Any item of property that is not realty.

Chattel Mortgage.—A mortgage on chattels or personalty.

C. I. F.—Initials of "charges, insurance and freight."

Cipher.—Private arrangement of words, letters or characters, by means of which persons can communicate by letter, telegraph, etc., briefly and without exposure.

Clear.—To make a vessel ready for sailing. To settle balances in a clearing house.

Clearance.—Grant of leave for a vessel to sail issued by the port authorities.

Clearing House.—An organization of banks in money centres which settles daily the balances of its members, by the use of certificates.

Clearings.—The amount of checks and drafts exchanged between the banks of a clearing house.

C. O. D.—Initials of "collect on delivery."

Coin.—Metallic currency.

Collateral.—The security placed in pledge when money is borrowed.

Combine.—A common term equivalent to "trust" in its offensive sense.

Commerce.—Trade interchange; largely significant of traffic between different countries.

Commercial Paper.—Business paper of negotiable quality.

Commission.—The per cent, or amount charged by brokers or agents for buying and selling stocks or commodities.

Common Stock.—Ordinary shares of a corporation, second in place to preferred stock.

Consign.—To send goods to a consignee. The sender is a consignor.

Consignment.—The sending and the things sent by a consignor to a consignee.

Contra.—Against, or on the other side.

Conversion.—Exchange of a bond for its equivalent in stock of the same company.

Copartnership.—Partnership.

Corner.—The withholding of a commodity from the market, in order to create an appearance of scarcity and raise price.

Corporation.—A body of men duly authorized by law to act as an individual.

Coupon.—A detachable evidence of interest due on a bond.

Coupon Bonds.—Bonds whose evidence of interest is shown by coupon attachments, to be cut off and presented for payment when the interest is due.

Cover.—To buy for the purpose of making good short contracts.

Credit.—Business integrity; selling not for cash; an amount due.

Creditor.—The one to whom a debt is due.

Cumulative Stock.—Stock on which a corporation agrees to pay past dividends before declaring new ones.

Curbstone Market.—The outside or sidewalk market for stocks, conducted by speculators.

Currency.—That which is current as money.

Debenture.—A certificate which evidences a debt.

Debit.—Amount due. To charge up a debt.

Debtor.—One who owes.

Default.—Failure to pay.

Demurrage.—Charge for delay or detention of cars and vessels beyond usual time.

Deposit.—Amount in bank; to place money in bank.

Discount.—The amount charged in advance for the use of money loaned.

Dishonor.—Refusal to accept a draft or to pay a written obligation.

Dividend.—The periodic gain which is divided among the stockholders of a company. Usually declared by percentage.

Drawback.—A rebate allowed on freight rates. A refund of duties allowed on the export of manufactures made from duty-paid articles.

Dun.—To persistently press a debtor for payment.

Dunnage.—The wood, sacking or other material used in packing a ship's cargo so as to keep it from shifting.

Duty.—The tariff or tax on imported goods.

E. and O. E.—Initials of "errors and omissions excepted."

Effects.—See ASSETS.

Embargo.—Detention by law of a vessel in port.

Embezzlement.—Fraudulent appropriation of money to one's own use.

Entry.—Qualification of a ship to land its cargo. To make record of a transaction. An importer's list of goods and duties due presented to the custom house for passage, and delivery of goods.

Equity of Redemption.—The right of a mortgagor in his property over and above the mortgage.

Excise.—Commodity tax within a country.

Ex-dividend.—Ex-dividended stock is that which is sold without the dividend, it having been retained by the seller.

Executor.—The one whom a testator appoints in his will to execute it.

Exports.—Commodities sent out of a country.

Ex-store.—When a buyer buys goods in stock agreeing to pay all expenses of delivery, he buys "ex-store," out of store.

Extension.—Giving more time for the payment of a debt.

Face Value.—The amount written on the face of commercial paper.

False Pretence.—Fraudulent statement made to obtain goods on credit.

Finance.—To furnish the money to start an enterprise.

Finances.—Moneyed means of a person or corporation.

Financier.—A manager and manipulator of finances.

Firm.—A partnership.

Flat.—Stocks are sold "flat" when the accrued interest is not considered.

Flotsam.—Shipwrecked or overboard goods which float on the surface.

Flyer.—A turn or chance in speculation.

F. O. B.—Initials for "free on board."

Foreclose.—To sue out a mortgage whose conditions have been broken.

Foreign Exchange.—Drafts drawn on foreign money centres.

Forgery.—Fraudulent making, altering or passing of commercial paper.

Franchise.—The legal right granted to individuals or corporations to operate along prescribed lines.

Funded.—Gathered into a permanent interest-bearing loan.

Futures.—Contracts to sell for future delivery.

Good Will.—The trading or money-making advantage of an establishment over and above all its other resources.

Granger Roads.—Western railroads, especially those carrying farm products.

Gross.—Not net. The total without tare allowance.

Guarantee.—A warrant or assurance of payment or performance.

Hedge.—To buy "long" in one market and sell "short" in another, in order to avert a loss.

Honor.—To accept and pay a draft.

Hypothecation.—Depositing collateral security for a loan.

Import.—To bring goods into a country.

Impost.—Import tax on goods.

Indemnity.—The guaranty against loss, damage or injury.

Indenture.—A written instrument.

Injunction.—A court process requiring the performance or stoppage of an act.

In Sight.—The quantity or amount of commodities of any kind which are available for the markets.

Insolvent.—Unable to pay one's liabilities.

Installment.—Separate payable part of a debt.

Intestate.—Dying without a will.

Inventory.—List of assets or goods, showing kind and estimated value.

Investment.—Buying to hold, not for speculation.

Invoice.—A seller's list of goods sold and their prices for the use of the buyer.

Irish Dividend.—Facetious expression for an assessment.

Jetsam.—Goods thrown overboard to save a ship, and which sink.

Jettison.—The allowance made for jetsam.

Jobber.—The intermediary buyer and seller between manufacturers and retailers.

Job-lot.—A mixed, low-priced assortment of goods sold generally by the lump.

Kiting.—An exchange of checks between two persons in order to gain time.

Lease.—A written conveyance of property for a specified time upon rental.

Legal Tender.—The lawful amount to offer in payment of a debt.

Lessor.—Maker of a lease. The lessee receives it.

Liabilities.—Debts.

License.—Lawful consent to conduct business or do an act.

Lien.—A legal claim against property.

Lighterage.—Carrying of goods in light vessels from or to heavier vessels; also, the charge for same.

Liquidation.—Ascertaining and closing out of indebtedness. In a speculative sense the selling out of property previously bought.

Long.—One who has bought for a rise.

Manifest.—Itemized list of a ship's cargo.

Margin.—Difference between what a speculator advances for a stock and its true value. Also, the money or security given to a broker to protect contracts.

Maturity.—Arrival of the time of payment of commercial paper.

Monopoly.—Power of dealing to the exclusion of all others.

Mortgage.—A defeasible deed given to secure a debt. It becomes void on payment of the debt. The one who mortgages his property is called the mortagagor; the party to whom it is given the mortgagee.

Negotiable.—An agreement which can be transferred by simple delivery like a bank note, or by endorsement, is called negotiable.

Net Cash.—Usage calls it "net cash" when payment for goods bought is made in full within 30 days.

Notary Public.—An officer whose function is to administer oaths, take acknowledgments, protest notes, etc.

O. K.—Stands for "oll korrect." A common way of marking paper as correct.

On Call.—See Call Loans.

Option.—Right to be a first buyer or seller; a privilege.

Outlawed.—A debt unpaid after the statute of limitation has begun to run.

Overdrawn.—To draw a check for more than the drawer's deposit in bank.

Overdue.—Paper unpaid after maturity.

Overissue.—Issuing of stock beyond the amount of authorized capital.

Par.—When paper or any evidence of debt is worth its face value.

Partial Payment.—Payment of part of a debt.

Partner.—A business associate.

Passed Dividend.—A dividend that a corporation has failed to declare.

Pegged.—A stubborn or glutted market.

Personalty.—A property that is not real estate.

Pit.—The part of an exchange in which brokers trade on their individual account.

Point.—A raise or fall of a stock equal to a dollar a share.

Pool.—Stock or money paid in by a combination to accomplish a certain purpose.

Post Date.—A date after the real day.

Pound.—The English gold sovereign is the equivalent of a sterling pound ($4.866).

Power of Attorney.—A duly acknowledged instrument authorizing one party to act for another.

Preferred Stock.—Stock shares which draw dividends ahead of common stock, and are otherwise preferred.

Privileges.—See Calls and Puts.

Promoters.—Those whose business is to organize companies.

Pro Rata.—Proportionate and equitable division.

Protest.—A notary's act and notice showing non-acceptance or non-payment of negotiable paper in time, and that endorsers are held responsible for payment.

Put.—A purchased privilege or option to deliver a property or contract to the seller at a stated time and price.

Pyramiding.—Using profits to enlarge operations.

Quarantine.—Place where a vessel is stopped to be examined for and cleared of infectious diseases. Also, the stopping of such vessel.

Quarter.—Fourth of 100 or 112 pounds; also a fourth of a ton or the equivalent of eight bushels of wheat.

Quintal.—In the metric system 220.46 lbs avoirdupois; otherwise 100 or 112 pounds, according to scale.

Rebate.—Return of part of what has been paid.

Registered Bonds.—Government bonds payable only to a registered owner.

Remittance.—Money or other value sent.

Renewal.—Giving of a new note in place of one whose time has run out.

Replevin.—Recovery by writ of goods wrongfully taken.

Salting.—Strewing a mine with good ore in order to deceive.

Salvage.—Money paid for saving property in danger of loss at sea.

Scalper.—A trader in options; an irregular seller of tickets. Scalping is buying and selling stocks at small profit or loss.

Schedule.—A list of goods and prices.

Scrip.—Evidence of stock ownership with no voting power or right to participate in dividends, till further action upon it has been taken.

Seigniorage.—Difference between the bullion and face value of coin.

Set-off.—A claim which cancels or sets off all or part of a counter claim.

Short.—One is "a short" who sells what he has not, and does not intend to deliver until he afterwards buys it.

Short Market.—A market in which contracts to deliver are in excess of the supply.

Silver Certificates.—Government non-legal tender certificates, passing as money, issued against treasury silver dollars.

Sine Die.—Without fixing a date.

Sinking Fund.—That part of income or revenue set aside for the payment of an obligation.

Solvent.—Able to meet one's liabilities.

Sovereign.—See Pound.

Speculate.—To buy or sell with the hope or ambition to make profit.

Spot Cash.—Cash on delivery of goods.

Sterling Exchange.—Draft or bill of exchange drawn on London.

Stock.—Company or corporation certificate to the effect that the person mentioned in it is a registered member of the company and entitled to participate in its powers and profits.

Stock Exchange.—A corporation organized for the purpose of buying and selling stocks, etc.

Storage.—The charge for keeping goods in store.

Straddle.—To buy in one market for future delivery and sale in another.

Supercargo.—One in charge of the buying and selling of a ship's cargo.

Surety.—One who signs with the principal of an instrument as a guarantee of faithful performance.

Syndicate.—A combination of persons for the purpose of aggregating capital for large undertakings.

Tariff.—Duty on goods imported or exported.

Tonnage.—A ship's capacity; extent of cargo.

Tontine.—An endowment life insurance policy which entitles the holder to participate *pro rata* in the premiums on lapsed policies paid in during the endowment period.

Trade Discount.—A usual per cent reduction on the price of goods sold by merchants.

Trade Mark.—A registered design used on his goods or labels by a manufacturer.

Trade Sales.—Specially appointed sales by particular classes of dealers.

Trunk Lines.—Main or through lines of railway, especially those from the Atlantic to the central and far West.

Trust.—In its perverted sense, a combination of similar interests for the purpose of restraining production, checking competition, and selfishly advancing prices.

Underwriter.—One who issues insurance, especially marine.

Usury.—Interest beyond the legal rate.

Voucher.—Any receipt or paper which is held to show and establish the fact of a transaction.

Warehouse.—Storage place for commodities.

Warehouse Receipt.—The receipt given by a warehouse when goods are stored therein. Their assignment passes title to the goods.

Watered Stock.—When capital stock is increased without increase of assets.

Wharfage.—Charge for the use of a wharf.

Without Recourse.—When an endorser writes "without recourse" over his signature it relieves him of responsibility.

BUSINESS HINTS FOR BOOKKEEPERS.

Bookkeeping.—This is both a science and art. As a science it is based on certain underlying principles which are indispensable, and which need special study. As an art, each bookkeeper must rely on his knowledge of conditions and his own genius for success. While he must accept one or the other of the two existing methods—single and double entry,—it is seldom that a competent bookkeeper does not vary either in order the better to adopt his methods to his particular business and surroundings. Of late years bookkeeping methods have undergone radical changes. Thus, the once indispensable *Journal* has become almost a thing of the past. And these changes go rapidly on, rendering any treatise on practical bookkeeping of only temporary value. But this does not detract from the usefulness of some practical hints on the bookkeeper and his duties.

Opportunity.—The bookkeeper has even better opportunity than his employer to better the business, for it is he who can first find out delays, confusions, laxities, extravagances, all of which he should report, with suggestions as to how they can be best remedied.

Intferference.—Oftentimes managers of a business grow old-fashioned, bigoted and stubborn. In such instances, when a bookkeeper is sure that a business has outgrown its methods, he should make the fact known and should be bold to insist on amendment. In so acting he is only indulging a prerogative and performing a duty.

Discipline.—An efficient bookkeeper can do much of himself to enforce discipline in an establishment, for he is in daily contact with shippers and clerks whose lax methods put him to inconvenience, and it becomes a matter of self-protection for him to urge such promptness and improved methods as will facilitate business and relieve him from embarrassments.

Leaks.—A bookkeeper should exercise freely his power to maintain *esprit* in the organization which employs him. He can best judge of the ability of his subordinates, of the condition of tools, of systems of work, of promptitude and cleanliness, of negligence and waste, and it is within his province to stop all sources of leaks, and all causes of demoralization. In business management proprietors are ever in search of leaks and are never so thankful for anything as for information as to their sources and the means of stopping them.

Promotion.—The tendency is for bookkeepers to fall into a sighing, humdrum existence. This should never be. We have endeavored to point out the importance of their business, its duties and responsibilities. When well conducted, no agent is more relied on nor more highly appreciated than the bookkeeper, and none is surer of promotion, even to membership in the firm.

Manual of Laws and Legal Forms

An exhaustive summary of all the Laws and Forms of the respective States relating to Collections, Conveyances, Intestates, Landlords & Tenants, and General Business Procedure; together with National Laws relating to Patents, Naturalization, Copyright, etc.

A COMPLETE AND SAFE LEGAL GUIDE

No more need of big Attorney fees. The Business Man need go no further for legal information. The best Handbook of law ever printed .˙. .˙. .˙. .˙. .˙.

A few of the hundreds of subjects shown are:

Forms of Acknowledgments, Agreements and Assignments
Laws of Assignment in all States
Powers of Attorney
Legal Forms and Effects of Bills, Bonds, Notes and Checks
Days of Grace in all States
When, Where and How to Bring Suit
Statutes of Limitation, all States
Collection Laws in all the States
Laws and Forms for Contracts
Conveyances—Deeds, Mortgages, Leases, Wills, etc.
Courtesy and Dower in all the States
Copyright, and How to Secure it
Exemption Laws in all States
Laws of Insurance
State Laws of Interest and **Usury**
Intestate Laws in all States
Laws of Landlord and Tenant, all States
Laws of Naturalization
Notaries Public, Powers and Duties
Laws and Forms of Partnership
Patent Laws and Patents
Law Principles, Civil and Criminal
Dictionary of Law Terms
Laws of Sales and Releases
Trade Marks, Laws of
Laws and Rules of Railways
Qualification of Voters in all States
Legal Holidays in U. S.
Justices of the Peace, Powers and Duties

All Business Men find it indispensable. A perfect well of legal information. Attorneys pronounce it the most valuable compendium extant.

Manual of Laws and Legal Forms.

Acknowledgments.

An acknowledgment is the certificate of a proper official under seal that the maker of a writing has come before him and, in due form, acknowledged such writing to be his act and deed for the purposes intended.

The higher and more solemn instruments of writing, as deeds, mortgages, powers of attorneys, etc., must, as a rule, be acknowledged in conformity with the laws of the State or locality where the property or central interest is situated.

Officers qualified to take acknowledgments are, in general, judges of courts, mayors, justices of the peace, notaries public, court clerks, commissioners of deeds, United States consuls, heads of legations, etc. They must affix their official seals to their certificates, or, when they have no seals, a scroll such as [L. S.]. An acknowledgment should show:

1. The place where taken.
2. That the officer who certifies is authorized by law to act in his locality.
3. The proper words of a certificate.
4. That the party appears and acknowledges.
5. A conclusion, signature and seal (or scroll).

Precise forms of acknowledgment vary in the respective States, but are in general valid if they embrace the above elements.

USUAL FORM OF ACKNOWLEDGMENT.

State of ——} *ss.*
County of ——}

I (*name of official in full*) a (*title of the official and locality*), do hereby certify that on this day personally appeared before me R. K., whose name is signed to the foregoing instrument, and who is personally known to me (*or proved to me on the oath of*) and acknowledged said instrument to be his act and deed for the uses therein specified. (*If the instrument is under seal and is to be recorded, add to the above the words,* and with the design that it shall be recorded as such.)

Given under my hand and seal this —— day of ——, 190—.

Or, (*Official signature and scroll.*)
(*Seal of officer.*)

In many States the law requires a separate examination of the wife where man and wife are signers of instruments affecting her property or dower rights. In such cases the certificate of acknowledgment must declare that such separate and apart examination was had. In the following form of acknowledgment by husband and wife the clause of separate examination can be omitted in States not requiring it:

ACKNOWLEDGMENT—HUSBAND, WIFE.

State of ——} *ss.*
County of ——}

I (*name and title of officer*), hereby certify that A. B. and S. B., his wife, whose names are signed to the foregoing instrument, and who are known to me, this day came before me and acknowledged said instrument (*deed, conveyance, etc.*) to be their act and deed, and desired the same to be recorded as such. And she, the said S. B., being of lawful age and by me examined separate and apart from her said husband, and the contents of said instrument (*deed, conveyance, etc.*) being first fully made known to her, did thereupon declare that she did voluntarily and of her own free will and accord, sign and seal, and as her act and deed, deliver the same without any coercion or compulsion of her said husband.

Witness my hand and seal this —— day of ——, 190—.
[SEAL.] (*Signature of Officer.*)

Affidavits.

An affidavit is a statement or declaration in writing, signed, and sworn or affirmed to, before an officer who has authority to administer an oath. It differs from a deposition in the respect that in the latter the opposite party has an opportunity to cross-examine the witness, whereas the affidavit is taken *ex parte*.

USUAL FORM OF AFFIDAVIT.

State of ——} *ss.*
County of ——}

On this —— day of ——, 190—, before me, the subscriber, a justice of the peace (*judge, notary, etc.*) in and for said county, personally appeared S. R., of ——, and being duly sworn (*or affirmed*) according to law, deposes and says that (*statement*).

Subscribed and sworn to before me the above day and date.
(*Official signature.*)

Affidavits designed to be used as evidence in suits should be headed with the caption of the suit as it stands on the court docket. The official subscription to an affidavit is called a jurat. Affidavits are in general use to establish the truthfulness of a thing, especially the accounts of administrators, guardians, trustees, etc.

Agreements.

See CONTRACTS.

Assignment.

Assignment is a transfer or making over in writing to another the whole of any property, real or personal, in possession or action, or of any estate or right therein. Being in writing it is distinguished from one by delivery. The writing is also called an assignment. Assignment differs from a lease, a lease being the conveyance of a less term than the lessor has in the estate. Every demand connected with a right of property, real or personal, is assignable. The essentials of an assignment are:

1. Proper operative words, plain or technical.
2. Such description of the thing assigned as that any one may readily distinguish it.
3. Conditions, restrictions, etc., with time and manner of performance, if any.
4. Signature of the assignor.

SIMPLE FORM OF ASSIGNMENT.

I hereby assign, transfer and set over unto **A. B.** all my right, title and interest in (*state what*).

(*Date.*) *Signed* O. S.

ASSIGNMENT WITH POWER OF ATTORNEY.

In consideration of the sum of —— dollars, the receipts of which is hereby acknowledged, I do hereby assign, transfer and set over to A. B., of ——, all my right, title and interest in and to (*state what*).

And I do hereby constitute said A. B. my attorney, in my name, but at his own expense, to take all legal measures necessary for the recovery and enjoyment of said premises (*or what not*).

Witness my hand and seal this —— day of ——, 190—.

(*Witness.*) O. S. [SEAL.]

The briefest form of assignment is the simple endorsement of the payee's name on the back of a note or check.

Assignments should be sealed, witnessed, acknowledged and recorded whenever they relate to the transfer of interests relating to realty.

Laws of Assignments and Insolvency in all the States and Territories of the United States.

The authority of Congress is paramount as to bankrupt laws for the whole country. Therefore, the United States Bankrupt Act of July 1, 1898, has rendered the several States and Territorial laws relating to assignment and insolvency inoperative so far as they conflict with that act, but no further.

Alabama.—No insolvent law.

Assignments.—If debtor seeks by confessing judgment or through an attachment, to give unlawful preference, this operates as a general assignment. So also preference cannot be given in the assignment itself. Creditor can require trustee to give bond.

Arizona.—In assignments, claims must be presented within six months from publication of notices. No preferences permitted.

Arkansas.—Insolvent Law.—Debtor may ask to be declared insolvent and turn over property to receiver, excepting what is exempted. Receiver may contest any attachment issued ten days before debtor files his application. After settlement debtor released of his debts. Wages and salaries for three months preferred. No other preferences among creditors.

Assignments may be made with preferences. Must be contested, if at all, within six months. If set aside it becomes an assignment for all creditors pro rata. Assignee gives bond. Insolvent corporations cannot prefer.

California.—A resident owing more than $300 may petition the Superior Court with schedule. The court orders the sheriff into possession until creditors appoint an assignee, not less than thirty days after published date of order. Preferences not allowed. Dividends declared from time to time on all proven claims. Assignee gives bond with two sureties. Involuntary insolvency is by petition of not less than five creditors with claims aggregating not less than $500, and verified by at least three petitioners showing fraudulent intentions or acts, or (unsatisfied) legal process for four days, or suspension of payments for forty days. If petition is granted, proceedings same as involuntary insolvency. Discharge, except in case of corporations, may be obtained after three months from time of adjudication. Any creditor may oppose discharge, and have issue tried by jury. Fraud punished by imprisonment.

Colorado.—No insolvent law.

Assignments.—No preferences. Claims filed within three months have preference over those filed after, unless creditor had no notice to present his claim. Estate must be closed up within one year unless court extend the time. Wages earned within six months before assignment, not exceeding $50, and taxes have priority. Assignor may obtain discharge from debts.

Connecticut.—Any creditor having a claim for $100 or over, founded on a contract, may cause a writ of attachment to issue. The officer returns he can find no property to attach, and then the creditor brings a petition to the Court of Probate asking for the appointment of a trustee to take charge of the debtor's estate. The trustee sells the property and pays the creditors pro rata. The debtor obtains no discharge unless he pays 70 per cent. The debtor can also make a voluntary assignment, and the trustee acts the same as in an involuntary case. No preferences.

Delaware.—Assignments must be for all creditors alike. Debtor is not discharged from his obligations except as far as paid. Debtor before assignment may prefer creditors by confessed judgment or otherwise, but the debt must be bona fide.

Insolvent laws practically obsolete.

District of Columbia.—Assignments.—All debts must be paid pro rata. List of debts, also of assets, must be attached to assignment. Assignee must reside in district.

No insolvent law applies in the district except the national bankruptcy act.

Florida.—ASSIGNMENT.—Distribution must be proportional to amount of claims. Exempt property reserved to assignor. No insolvent law.

Georgia.—Assignments may prefer creditors, but a corporation may prefer only creditors entitled to priority under the general laws of the State. A levy made under attachment, before assignment, will stand. Assignor and assignee must make complete list of property, and assignor must make affidavit of its completeness. If one who is insolvent purchases goods, without intending to pay for them, the vendor may annul the sale and recover the goods, if no innocent third party has acquired rights therein. An insolvent corporation, or trader, not paying a debt at maturity is liable to have his property placed in the hands of a receiver on petition of creditors representing one-third or more of unsecured debt. By trader is meant one who does business, buys and sells realty or personalty of any kind, a banker, broker, or commission merchant, or one manufacturing $5,000 worth of goods or more per annum. No preferences allowed after application for receiver. Court may discharge debtor from his debts, but this is not usually done.

Idaho.—Insolvent debtor may apply to court, surrender all he owns to the sheriff till appointment of an assignee to take charge (reserving for himself what is exempt from execution). The creditors elect the assignee. The debtor may be discharged from debts of residents of the State; also of non-residents who present their claims.

Illinois.—ASSIGNMENTS.—Assignee must send notice to each creditor to present his claim under oath within three months. If not so presented the claim is deferred to those of creditors who comply. Assignee must render final account within a year, but dividend may be ordered meantime by the court. List of claims proven must be filed by assignee at the end of three months, and claims may be contested within thirty days after list is filed. Preferences whether made in assignment or in contemplation of assignment are void. Wages are preferred, otherwise distribution is pro rata to creditors.

Indiana.—No preference in assignments, but preference may be effected by prior confession of judgment or mortgage. Assignor is not discharged from debts, unless they are paid in full. Claims filed must be under oath. The trustee or a creditor may cause the arrest of assignor or person to whom a fraudulent transfer of property has been made, and subject him to examination in court. Dividend may be compelled when assets on hand sufficient to pay ten per cent. Creditors representing half of the liabilities may cause removal of trustee. To be effective deed of assignment must be recorded.

Indian Territory.—Assignee must sell property at public sale within 120 days after giving bond.

Insolvent law applies only to releasing persons imprisoned for certain causes.

Iowa.—Assignments must be for the benefit of all the creditors. No preferences permitted in assignment. Property exempt from execution may be reserved. Assignee must notify all creditors known to him to present claims under oath within three months, at the end of which time he must file list of creditors so presenting claims, and within three months thereafter interested parties may file objections to any claim. Assignment does not effect a discharge from debts. Taxes and wages not exceeding one hundred dollars to any employe for work done within ninety days preceding the assignment are preferred.

Kansas.—All creditors participate in proportion to amounts of claims. They are entitled to notice by advertisement and also by letter, so far as their addresses are known, of time and place of adjusting and allowing demands. The enactment of the bankruptcy law practically avoids the State assignment law. No insolvent law in this State; only a discharge of claims after United States bankrupt proceedings.

Kentucky.—Assignments are for the benefit of all creditors. Exempt property does not pass by the deed. Preferences made within six months before assignment are void, and assignee is authorized to recover property transferred in fraud of creditors.

Creditors living out of the county are entitled to notice by mail. Claims must be probated, and if not properly presented are deemed waived unless the court order otherwise.

Louisiana.—A debtor may ask his creditors for a respite, and a majority may grant such, not exceeding three years.

Should this be refused, surrender follows; but preference to any creditor is void.

The debtor obtains a discharge from his debts upon surrender of his property, and all creditors proving their debts, and accepting a dividend, are barred from further proceedings for the balance, but the debtor is debarred from this right if he has given an unjust preference within three months before surrender.

A creditor who has issued execution and found no property thereon may force a surrender.

Maine.—A debtor owing over $300 may apply for benefit of insolvent act by paying $25 into Insolvent Court with his petition.

When one or more creditors make oath as to their belief in the insolvency of a debtor, and that they believe their aggregate debts amount to more than one-fourth part of the debts provable against a debtor, the judge shall declare him insolvent, if such allegations are proved.

An assignee is chosen at the first meeting of creditors, such choice being made by a majority in number and value of the unsecured creditors present in person or by attorney. If no choice made the court appoints; and in the interval between the declaration of insolvency of debtor and choice of assignee by creditors the court messenger shall hold the estate of debtor.

An assignee may recover any money paid a creditor on writ, judgment or execution, when such payment is made within four months prior to commencement of insolvency proceedings, when such money is received as a preference, and known at the time that debtor is insolvent.

A discharge shall not be granted if debtor has sworn falsely, concealed assets, or otherwise fraudulently acted.

A discharge may be granted any time after four months from the time of issuing the warrant of insolvency.

Should debtor at first meeting produce an agreement, signed by a majority of the creditors, representing three-fourths of his indebtedness, agreeing to accept a certain percentage, the judge shall grant a discharge when debtor has paid or secured such percentage.

Creditors out of the State, who have not proved their claims, are not affected.

Maryland.—Deeds of trust for the benefit of creditors may be made if not to burden, delay, or defraud creditors. No preferences allowed.

Massachusetts.—Debtor may assign all his property, reserving what is exempt, and if a majority (in number and amount of claims) of the creditors who are unsecured and not privileged under the law assent in writing, the assignment will be valid. Those assenting will share to the exclusion of those not assenting, unless the instrument expressly makes the assignment for the benefit of all creditors. The assignment may be superseded any time within six months, however, by the institution of insolvency proceedings under the State laws. Known creditors are entitled to notice by mail.

A State insolvency law is in force so far as not superseded by the United States Bankruptcy Act of 1898. It enables a debtor, making an honest surrender of his property, to obtain a discharge from his debts, or to effect a compromise with all creditors with the consent of three-fourths of them in number and amount of claims.

Michigan.—Assignments for creditors must contain no preferences. Property exempt from execution is allowed the debtor. Claims must be proved by affidavit, showing the consideration for the debt, when contracted, when due, all payments on account, and what collateral is held therefor.

Minnesota.—Exempt property excluded from the assignment. Attachment or levy becomes dissolved by an assignment made within ten days thereafter. Complete schedule of debts must be filed by assignor. Known creditors must have notice by mail. Claims must be itemized, verified, and filed within time fixed by court. If debtor does not assign in such manner and at such time as to prevent parties from obtaining preferences, creditors may have receiver appointed. All payments and transfers made within ninety days before assignment or receivership to those having reason to believe debtor insolvent may be set aside. Taxes and $50 wages owing any person earned within ninety days preceding assignment, or receivership, are preferred by law.

Debtor may be discharged only from claims proven or participating in the distribution. Secured creditors must exhaust security before participating in general assets.

Mississippi.—Assignment act of 1892 compels assignee to file petition and bond in twenty-four hours. He then becomes an officer of the court for the purpose of the assignment. Preferences are allowed, and creditors may attack by cross-petition.

Missouri.—No insolvent law.

ASSIGNMENTS.—No preferences allowed. Not more than one month after allowance of claims a dividend must be paid and thereafter as often as funds on hand warrant a dividend of five per cent. State taxes and wages accrued within six months, not exceeding $100 to each employe, have priority. Debts are not discharged unless paid in full.

Montana.—No insolvent law.

Insolvent debtors may make assignments and prefer creditors, but the preference must be absolute and without power of revocation. Wages for sixty days preceding assignment, not exceeding $200, have priority to all other claims.

The debt is not discharged; creditors to be bound must be notified. Fraudulent proceedings subject the debtor to imprisonment till he makes full surrender.

Nebraska.—Sheriff takes charge of assigned estates in the first place. Subsequently creditors meet and choose an assignee, and notice of meeting must be given creditors. Claims must be filed by a day fixed, or be barred. Debtor must file statement giving particulars as to assets and liabilities. Only property exempt from execution can be reserved. Within three months after date of inventory court orders distribution of funds on hand. No preferences allowed unless it be for $100 or less for wages. Transfers made in contemplation of insolvency within thirty days before making the assignment to a person having cause to believe the assignor insolvent are void. So also are preferences to creditors with like intent within the thirty days.

Nevada.—Insolvent debtor, owing $500 or more, residing one year in any county, may make assignment. Creditors choose assignee, or on their failure, the court appoints the sheriff. To secure a discharged debtor's property surrender must equal fifty per cent of debts unless three-fourths in number and one-half in amount of creditors consent. No discharge granted where fraud proven. Partners and corporations may be driven into involuntary insolvency on petition of five creditors, residents of the State, whose claims reach $500.

New Hampshire.—No preferences allowed, and assignment must include the whole estate of assignor. A composition will be allowed, three-fourths of the creditors in number and amount of claims consenting (claims to exceed $50 each), and the judge of probate also consenting, thus effecting a discharge from debts. A creditor may dissent, take no benefit under the assignment, and still hold his claim.

New Jersey.—Assignment must be of all the debtor's estate without preference. Judgment confessed to give a preference will not be preferred. The assignee gives public notice to creditors to file and prove claims within three months. Those not filed within three months after the assignment may become barred of a dividend. Goods and chattels to the value of $200 and wearing apparel shall be reserved from estate of one having a family. Wages not exceeding $300 to one person have priority. Rent for one year is preferred out of proceeds of personalty on property leased. Claims presented will be discharged; others will not.

New Mexico.—Debtor may make a voluntary assignment of all his property, resulting in a distribution pro rata among the creditors, or the court will, on application of adverse parties, appoint an assignee if application thereof is made within six months after any sale, mortgage or transfer made by the debtor or judgment suffered or act done by him in contemplation of insolvency with design to prefer one or more creditors. No preferences are allowed in any case, but the debtor is allowed property exempt from execution. He is not discharged from debts not fully paid upon distribution of the assets.

New York.—Wages and salaries earned within a year prior to assignment are preferred, and preferences to creditors may be given with respect to one-third of the balance of the estate, but assigning partnerships and corporations can make no preferences. After one year from date of assignment a creditor may compel assignee to account. Assignor is not discharged from unpaid portions of his debts.

North Carolina.—Insolvent debtors, in order to obtain a discharge, must file a petition and full schedule of property and debts, when a trustee will be appointed to hold the property for the benefit of creditors. The debtor is then entitled to a personal discharge.

ASSIGNMENTS.—Debtors may make preferences, but within five days after making assignment assignor must file statement containing list of preferred creditors, amount due each, when contracted, and consideration therefor, otherwise the deed is invalid. Assignee must file account every three months, and his final account within twelve months, unless good cause be shown to the contrary. Claims must be probated and filed.

North Dakota.—An assignment in good faith may be made in trust for creditors.

An insolvent cannot give a preference to one or more of his creditors.

An insolvent debtor owing $500 or more may take the benefit of the insolvent law and become discharged from his debts, if he has acted fairly and honestly, upon surrendering all but his exempt property. The court directs notice to be given all creditors.

Any person owing $500 or more acting fraudulently, seeking to escape creditors, or committing acts designed to prefer creditors contrary to the insolvent law of the State, or, while insolvent, suffering an execution of $500 or more to be returned unsatisfied, or, if a merchant, suspending payment for thirty days or more of commercial paper, may be driven into involuntary insolvency by creditors having claims amounting to $400 or more. Notice is given to creditors and they choose an assignee. All levies under any process made within sixty days before proceedings are commenced are dissolved, and any transfers to defraud creditors made within thirty days are void, and no judgment will be a lien if suit was commenced within six months and entered within thirty days before proceedings are commenced. Debtor may be discharged from debts if he has practiced no frauds. Life insurance is not included in the insolvent estate.

Ohio.—Assignor retains property exempt from execution, unless waived in the assignment. Court may order business to be carried on on application of three-fourths of the creditors. Claims must be probated and filed within six months after assignment. Taxes on personal property, wages earned within twelve months prior to assignment not exceeding $300, are preferred, but not to the prejudice of a lien. Debtor is not discharged from his debts so far as unpaid. A debtor may, in good faith, prefer a creditor before assignment.

Oklahoma.—Must be no preferences in assignments, though bona fide creditors may be preferred before assignment.

Oregon.—An assignment by one insolvent is not good if it contains preferences. The assignment dissolves all attachments on which judgment has not been obtained. The creditors may select the assignee. Debtor may be discharged from his debts if his estate has paid fifty per cent.

Pennsylvania.—Assignment without preferences may be made of all or part of one's estate, but it will not work a discharge from unpaid portions of debts. Bona fide creditors may be preferred before assignment. Debtor may reserve $300 worth of his property, or waive his right to it. Certain taxes are preferred, as are also wages earned within six months not amounting to over $200 in any one case. Distribution of personalty proceeds is then to all creditors pro rata; likewise as to realty proceeds after lien creditors are satisfied. Levies and attachments of personalty before the assignment hold good. Assignee may be required to file an account after one year, or show cause why he should not. Distribution is by an auditor appointed by court after the account is confirmed, and claims must be presented to the auditor.

Rhode Island.—Insolvent laws still appear in the statutes of the State, but are practically null and void since the passage of the National Bankrupt Act. A debtor has a right to make a common law assignment or trust deed, but on doing so it is an act of bankruptcy, and he can be put into bankruptcy at once. Under the old law the creditors chose the assignee. Claims had to be probated and filed. The court could order a composition with creditors under certain circumstances and discharge debtor. Taxes and wages not over $100 and earned within six months were preferred. The insolvent had to owe $300 or over, and had to petition the court for relief and discharge from debts, or creditors representing one-fourth of his debts could institute insolvency proceedings if he had assigned for the benefit of his creditors, or taken steps to defraud.

South Carolina.—Assignments giving preferences are void, and all conveyances, mortgages, etc., within ninety days before assignment, are void unless made for present consideration. Creditors proving their claims before the assignee, and executing releases in full of their claims, are entitled to entire assets, if required to pay them in full. If anything remains, other creditors take it pro rata.

South Dakota.—Insolvent debtor may assign, reserving property exempt. Preferences are forbidden.

Tennessee.—In a general assignment no preferences are allowed. A conveyance or a judgment confessed within three months before assignment and in contemplation thereof is void. Debtor must file, under oath, schedule of assets. Attachment or execution levied on property before recording assignment is good.

By a special assignment, as by deed of trust, a debtor may secure one or more of his creditors.

A foreign general assignment, without registration in the State, will not avail against a subsequent attachment.

Texas.—Insolvent debtors may transfer all their property, reserving that exempted by law, but this will not discharge them from unpaid portions of their debts.

Also, an assignment may be made to benefit only such creditors as release the assignor from further liability, provided the assignee pays at least one-third of their claims. Accepting creditors must give notice of willingness to release within four months unless they did not know of assignment, and must file probated claims. When funds permit it, dividends of ten per cent must be paid.

Utah.—Any creditor or creditors may be preferred. Joint, or joint and several, debtors can prefer joint creditors only from joint property, and can prefer individual creditors only out of separate property. The deed must reserve no benefits to the assignor, but exempt property and life insurance will not be transferred by it unless the contrary intention be expressed. Creditors are entitled to notice by mail. Claims must be probated and filed.

Vermont.—An inhabitant contracting and owing debts over $300 may petition court stating his inability to pay and his desire to assign. The creditors elect the assignee or the judge appoints. Known creditors are entitled to notice by mail to prove claims and elect assignee. Claims not filed within six months after debtor is adjudged insolvent are barred.

Creditors having claims of $250 or more may force the debtor into involuntary bankruptcy. Preferences within four months before filing petition are set aside. Debts and taxes due the United States and the State, not exceeding $50, for services performed within six months before adjudication of insolvency have priority. Discharges from debts are granted only where the estate pays thirty per cent or more, unless a majority in number and amount of creditors assent. Corporations are not discharged.

Virginia.—Assignments may contain preferences without limit.

Washington.—Where the assignment is honest, the debtor may be discharged from all prior indebtedness. Property exempt from levy by execution or attachment may be retained by the assignor.

West Virginia.—An insolvent debtor may not make preferences, yet creditors must take steps to resist them in order to prevent them becoming operative.

Wisconsin.—Preferences in assignments are void, as also are preferences sought to be effected within sixty days prior to assignment and in contemplation thereof. Claims must be filed within three months from time notice is given. Assignee must mail notice to creditors.

If insolvent debtor's property is attached or levied upon, he may within ten days assign all his property not exempt for all creditors, whereupon such levies, etc., will be dissolved. An insolvent debtor seeking to prefer creditors may be driven into bankruptcy by other creditors, a receiver taking charge of all except exempt property.

Wyoming.—Any person may assign all his property for his creditors. Any attachment or execution, payment or transfer within twenty days of assignment is void if the party to be benefited had reasonable cause to believe the party insolvent. Wages for three months before assignment have priority.

Attorneys.

DUTIES AND FORMS OF APPOINTMENT.

In general an attorney is one who acts for another by virtue of an appointment.

Attorney at Law.—This is one who has been admitted to the bar under the laws of his State, and has thereby become an officer of the court of justice. He is also known as counsellor, advocate, lawyer and solicitor, and may be verbally employed or retained by a client to defend him in a suit or action or to advise him generally about legal affairs.

But many attorneys at law prefer, and others are required, to have a written appointment or selection, a general form for which runs thus:

I hereby authorize and empower H. A. R., my attorney at law, to appear in my behalf, and as my said attorney represent my entire interests in any action, suit or legal proceeding (and especially, *state the particular cause, if any*) in anywise affecting the same, with power of substitution.

(Client's Signature.)

Attorneys at law must be true to courts and clients; must guard the secrets of clients; must keep them informed as to their legal affairs, and must conduct their business with care, intelligence and integrity. If he have done thus he is entitled to reasonable pay, and may collect the same at law.

Attorney in Fact.—This term is used to designate one who has received written authority from another to act specially or generally in his place. The person who gives the letter or writing of authority is called the constituent. The instrument of writing by which a person or persons give authority to another or others to act in the place of the former is called a Letter or Power of Attorney. It may give authority to the agent or agents mentioned in it to act generally for and in place of the constituent or constituents, or it may confer a limited authority only, in which case the particular acts to which the power is limited must be particularly mentioned in the instrument.

As a rule, powers of attorney are in writing and under seal. But courts have held that a parol power of attorney is valid under certain circumstances. Both parties to a power of attorney must be competent as to age and understanding. It is a standing rule that an attorney in fact cannot execute for his principal a sealed instrument unless his own power or letter of attorney is under seal. Powers of attorney are strictly construed by the courts. An attorney in fact cannot bind his principal by any act in which he exceeds the authority conferred on him in his letter of attorney. Where a power is vested jointly in several persons they must unite in executing it.

An attorney in fact cannot delegate his power to another, or act by a substitute, unless he is so authorized in his letter of attorney. A power of attorney may be revoked by giving notice to the attorney in fact. An attorney in fact holding under a simple letter of attorney should first sign his principal's name and then his own as attorney. Thus: John Doe, by Richard Roe, his attorney in fact. All powers of attorney of serious import, as, for instance, to sell or encumber real estate, should be executed under seal and recorded.

Elements of a Power of Attorney.—1. The letter or power of attorney should contain the name of the principal or principals, and of the attorney or attorneys appointed.

2. The nature and description of the duty or duties imposed and the particular mode of performance.

3. The character of the power imposed, whether limited or general, with statement of conditions, limitations, restrictions, etc., if any.

4. The power of substitution and revocation.

5. The ratification and confirmation.

6. Signature of principal or principals.

7. Attestation or acknowledgment when required by law, as in case of power to encumber or sell real estate.

8. Recording, when required by law, as in case of power to encumber or sell realty.

POWER OF ATTORNEY—SHORT, SIMPLE FORM.

Know all men by these presents:

That I, the undersigned, of ——, do hereby make, constitute and appoint R. B., of ——, my true and lawful attorney, for me and in my name and stead to (*there insert the subject-matter of the power*), to do and perform all the necessary acts in the execution and prosecution of the aforesaid business in as full and ample a manner as I might do if I were personally present. Witness my hand (*and seal*) this —— day of ——, 190—.

Executed in presence of A. M.

(*An acknowledgment if to be recorded.*)

POWER OF ATTORNEY, WITH POWER TO REVOKE AND SUBSTITUTE.

Know all men by these presents:

That I, B. A., of ——, do by these presents appoint, constitute and make K. R. (*or others*) my true and lawful attorney, for me and in my name, place and stead to (*state what*).

That I do by these presents give unto my said attorney full power and authority to do and perform all and every act or thing necessary to be done in and about these premises, as I might or could do if personally present, with full power of substitution and revocation, hereby confirming and ratifying all that my said attorney shall lawfully do or cause to be done by virtue hereof.

In testimony whereof I have this —— day of ——, 190—, affixed my hand (*and seal*). B. A.

Witnesses present.

(*Acknowledgment if necessary.*)

Bill of Lading.

A bill of lading is a carrier's acknowledgment of the receipt of goods for shipment. It is construed in law as a contract, and generally contains in printed form the extent of the liability which the carrier is willing to assume.

BILL OF LADING—COMMON FORM.

The —— Railway Co.,
Place ——, Date ——.

Received from (*consignor's or shipper's name*) one box (*package, bundle, whatever article or articles*), of the value of —— (*weight, if necessary*). Marked (*state name and direction*). Freight paid (*or collect*).

The company's conditions will generally be found printed on back. The terms used in a bill of lading will receive such construction as the usage of the business requires. A bill of lading may be assigned. The holder may recover upon it for loss of goods, damage thereto, failure to deliver, etc.

Bills, Bonds, Notes, Checks.

Bills of exchange or drafts, bank and personal notes, checks, and certificates of deposit are evidences of indebtedness, commercial substitutes for money, and general mediums of business and mercantile exchange. They are negotiable generally, but may be non-negotiable. When negotiable they are made to order or bearer, and the holder's signature on the back transfers them. Non-negotiable notes are assignable by proper forms in the nature of a special contract. Bank notes are assignable by simple delivery. They are demand notes.

UNITED STATES BANK NOTE.

No. —— $ ——.

A.

The United States will pay to bearer —— dollars.

Washington, D. C. O. S.,

A. B., Treasurer of the United States.

Register of Treasury.

No. ——.

NATIONAL BANK NOTE.

$ ——. No. ——

B.

The Third National Bank of —— will pay —— dollars to bearer on demand. N. B.,

A. H., Cashier. President.

No. ——.

Bonds.—These are but another form of negotiable paper, made by States or corporations under authority of law, and generally made payable to bearer, passing by mere delivery. The form, design and nature of a bond vary to suit its circumstances, and show what it is intended for, whether negotiable or not, and how. It is an absolute contract for the payment of a certain sum of money to the bearer, and the common usage is to sell in the market, to be transferred by delivery. They generally have coupon attachments, showing the accumulation and date of payment of interest. These may be detached and presented to headquarters for payment. Bond forms vary to suit specific objects.

Bills of Exchange.

BILLS OF EXCHANGE OR DRAFTS—SIMPLE FORM.

$ ——. Place ——, Date ——.

Thirty days after date (or sight) pay to O. S. or order —— dollars, and charge to account of S. R.

To K. L. (at) ——.

If the above were directed to a bank it would be called a draft.

BILLS OF EXCHANGE—BY LETTER OF ADVICE.

As per letter of advice, pay to O. N., or order, —— dollars, and charge to the account of S. R.
To A. N. (at) ——.

S. R. in the above form is called the *drawer;* O. N. the *payee;* A. N. the *drawee.*

Foreign Bills of Exchange.—Bills of exchange for widely distant places at home (called inland bills) or for foreign countries are, to insure disaster of carriage, drawn in sets of three.

SET OF FOREIGN BILLS OF EXCHANGE.

Place ——, Date ——.
Exchange for £ —— Sterling.
—— days after —— of this FIRST of exchange (second and third unpaid) pay to the order of O. S.
Value received and charge the same to account of
To B. R., at ——. H. A.
No. ——.

Place ——, Date ——.
Exchange for £ —— Sterling.
—— days after —— of this SECOND of exchange (first and third unpaid) pay to the order of ——.
Value received and charge the same to account of
To B. R., at ——. H. A.
No. ——.

Place ——, Date ——.
Exchange for £ —— Sterling.
—— days after —— of this THIRD of exchange (first and second unpaid) pay to the order of ——.
Value received and charge the same to account of
To B. R., at ——. H. A.
No. ——.

Acceptance must be noted on bills of exchange to continue their currency. As to negotiability, they follow closely the rules and laws of other commercial paper.

Checks.—A check is a written order or request addressed to a bank by a person having money on deposit, to pay, on presentment, to the person named therein, or bearer, or to such person, or order, the amount of money designated. A check is not due until presented at the bank, and, therefore, can be negotiated at any time before presentment without subjecting the holder to any of the equities existing between the previous parties. A check must be presented to bank within a reasonable time (the quicker the better). Checks are designed to facilitate banking operations. They are negotiable where they contain words of negotiability (order or bearer). Giving a check is not payment unless the check is honored.

FORM OF CHECK.

Place ——, Date ——.
Third National Bank pay to the order of R. A. —— dollars. H. A.

Certificate of Deposit.—This is given by a bank or other institution to a depositor, generally to one who intends to let his money remain for a stated time, as a year, as an evidence that the bank is his debtor for the amount and time mentioned. It is on the same footing as a promissory note, in which the bank is the debtor.

Promissory Notes.—A promissory note is a written promise to pay the sum mentioned in it at a specified future time unconditionally. In full form it contains a promise to pay, at a time stated, the sum expressed, to the person named or to his order, for value received. It is dated and signed by the maker, and is never under seal.

A note by two or more makers is called a "joint" note when it begins with "We promise," etc. In this instance the second party signing is surety for the first, and pays only when the first fails to do so. If the note by two or more parties begins with "We jointly and severally promise," etc., then it is a joint and several note, and both parties can be sued as principals. A promissory note payable to order or bearer passes by endorsement, and the holder may bring suit on it in his own name.

FORM OF SIMPLE PROMISSORY NOTE.

$ ——. Place ——, Date ——.
Thirty days after date I promise to pay to H. O. or bearer (*or order*) —— dollars without defalcation for value received. S. R.

INTEREST-BEARING PROMISSORY NOTE.

$ ——. Place ——, Date ——.
—— days after date I promise to pay to H. O. or bearer (*or order*) —— dollars, with interest thereon at the rate of —— per cent per annum from date (*or maturity*) until paid. Without defalcation. Value received. S. R.

PROMISSORY NOTE—PAYABLE AT BANK.

$ ——. Place ——, Date ——.
—— days after date I (*or we, or we or either of us, or we jointly and severally*) promise to pay to the order of H. O., at the —— Bank, in ——, —— dollars (*with interest, if any*). Without defalcation. Value received. S. R.

Notes payable at a bank are usually deposited by the holder for discount and collection.

Judgment Note.—A judgment note is merely a promissory note in the usual form, with the addition of a power of attorney to appear and confess judgment for the amount of the note.

A common form of such note with a waiver of the exemption laws is as follows:

$ ——. Place ——, Date ——.
—— days after date —— promise to pay to —— or order —— dollars (*state interest, if any*) without defalcation for value received. And —— do hereby confess judgment for the above sum with interest and costs of suit, a release of errors, and a waiver of rights to inquisition and appeal and to the benefit of all laws exempting real or personal estate from levy and sale. R. S. [SEAL.]

Days of Grace on Notes, etc.

STATES.	Is Grace Allowed on Sight or Demand Paper?	Is Grace Allowed on Time Paper?	Saturday Half Holiday.	Notes Maturing on Saturday.	Notes Maturing on Sundays and Holidays.
				Payable	*Payable*
Alabama	Yes	Yes	No	Same day	Day after.
Arizona	Yes	Yes	No	Same day	Day after.
Arkansas	Yes	Yes	No	Same day	Day before.
California	No	No	Yes.[15]	Same day	Day after.
Colorado	No	No	Yes	Same day	Day after.
Connecticut	No	No	Yes	Next business day	Day after.
Delaware	No	No	Yes	Monday	Day before.[1]
District of Columbia	No	No	Yes	Next business day	Day after.
Florida	No	No	No	Same day	Day before.
Georgia	No	Yes	No	Same day	Day before.[2]
Idaho	No	No	No	Same day	Day after.
Illinois	No	No	Yes[15]	Same day	Next business day
Indian Territory	Sight, yes; demand, no	Yes	No	Same day	Day before.
Indiana	Yes	Yes	No	Same day	Day before.
Iowa	Sight, yes; demand, no	Yes	Yes[15]	Same day[3]	Day before.
Kansas	No	Yes	No	Same day	Day before.
Kentucky	Sight, yes; demand, no	Yes	No	Same day	Day before.
Louisiana	No	Yes	Yes	Monday	Day after.
Maine	Sight, yes; demand, no	No	No	Same day	Day after.[4]
Maryland	No	No	Baltimore, Harford and Montgomery Counties	Same day[5]	Day after.[6]
Massachusetts	Sight, yes; demand, no	No	Yes	Monday	Day before.
Michigan	Sight, no; demand, yes	Yes	Yes	Monday	Day after.
Minnesota	Sight, yes; demand, no	Yes	Yes[15]	Same day	Day before.
Mississippi	Yes	Yes	No	Same day	Day before.
Missouri	No	Yes	In cities over 100,000	Monday	Day after.[8]
Montana	No	No	No	Same day	Day after.
Nebraska	No	No	No	Same day	Day after.
Nevada	**Sight, yes; demand, no**	Yes	No	Same day	Day before.
New Hampshire	**Sight, yes;** demand, no	No	Yes[15]	Same day	Day before.
New Jersey	No	No	Yes	Monday	Day after.
New Mexico	Yes	Yes	No	Next business day	Day after.
New York	No	No	Yes	Monday	Day after.
North Carolina	Sight, yes; demand, no	Yes	No	Monday	Day after.[9]
North Dakota	No	No	No	Same day	Day after.
Ohio	No	No	Yes[10]	Same day	Day after.
Oklahoma Territory	Yes	Yes	No	Same day	Day after.
Oregon	No	No	No	Same day	Day after.
Pennsylvania	No	No	Yes	Next business day	Next business day
Rhode Island	Sight, yes; demand, no	No	Yes	Next business day	Next business day.
South Carolina	Sight, yes, demand, no	Yes	Charleston only[4]	Monday	Day after.
South Dakota	Yes	Yes	No		Day after.
Tennessee	No	No	No	Same day	Day before.
Texas	Sight, yes; demand, no	Yes	Yes[12]	Same day	Day before.[13]
Utah	No	No	No	Same day	Day before.[8]
Vermont	No	No	No	Same day	Day after.
Virginia	No	No	Yes	Same day	Day after.[14]
Washington	Yes	Yes[15]	Yes[15]	Same day.[16]	Day after.[17]
West Virginia	No	No	No	Same day	Day before.
Wisconsin	No	No	Yes[15]	Same day	Day after.
Wyoming	Yes	Yes	No	Same day	Day before.
Canada	Yes	Yes	Yes	Monday	Day after.

---

[1] When a holiday falls on Saturday, notes due Saturdays and Sundays are payable on Friday.
[2] If a Sunday and a holiday come together, that is Sunday and Monday, the paper maturing on Monday is payable on Tuesday.
[3] Unless a holiday.
[4] If the day before is Sunday or holiday, then the day after.
[5] If in Baltimore, Harford, or Montgomery Counties, next business day.
[6] When holiday occurs Monday, note is payable Tuesday.
[7] In cities having 100,000 inhabitants or more.
[8] When two holidays come together, the first the day before, and the second the day after.
[9] If holiday falls on Saturday, notes are payable on Monday.
[10] In towns and cities of over 50,000 inhabitants.
[11] In city of Charleston only.
[12] By custom only, during the summer.
[13] If grace is waived, the day after.
[14] Notes dated prior to May 1, 1896, the day before.
[15] By custom only.
[16] If without grace.
[17] Unless grace is allowed. If last day of grace falls on Sunday or a holiday, then the previous business day.

Endorsement.—Bills of exchange, promissory notes, checks, and negotiable paper in general, are transferred by writing the holder's name on the back. The one who does this is called the endorser, and the person to whom the endorsement is made is called the endorsee. When the endorser writes only his name it is an endorsement in blank. When the endorsee's name is mentioned in the endorsement it is an endorsement in full. Thus: Pay to order of H. K. (signed) R. S. Endorsements may be limited in various ways, and are good even if on the face of the paper. In general an endorser assumes at law the responsibility of a new drawer, and is liable to every succeeding holder. But he can avoid this responsibility by writing the words "Without recourse" in his endorsement. An endorsee acquires a right of action against all persons whose names are on the paper before his, in case of default of payment. All holders of negotiable paper should be particular to observe the laws of demand and protest, so as to hold principals and endorsers responsible.

Bonds and Obligations.

A bond is an obligation in writing under seal. It may be simple, as where the obligor binds himself, his heirs, executors and administrators, to pay a certain sum of money to another at a stated time; or, it may be, and usually is, conditional, that is, if the obligor does some promised act or thing, the obligation becomes void, or otherwise remains in full force and effect. Bonds may be joint, or joint and several, like promissory notes. They usually contain mention of a penalty or penal sum which is twice the amount of the principal, in order to cover interest and costs of collection. This class of bonds are commonly spoken of as judgment bonds, and are entered as liens on the court records.

GENERAL FORM OF BOND.

Know all men by these presents:

That I, R. S., of the town of ——, in the county of ——, and State of ——, am held and firmly bound unto O. K., of ——, in the sum of one thousand dollars, to be paid to the said O. K., his executors, administrators or assigns; for which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, firmly by these presents.

Sealed with my seal. Dated the —— day of ——.

The condition of the above obligation is such:

That if the above-bounden R. S., his heirs, executors, or administrators, shall well and truly pay, or cause to be paid, unto the above-named O. K., his executors, administrators or assigns, the just and full sum of five hundred dollars, in five equal annual payments, from the date hereof, with annual interest, then the above obligation to be void; otherwise to remain in full force and virtue. R. S. [SEAL.]

Sealed and delivered in presence
of A. B., N. T.

The condition is a vital part of a conditional bond. Unlawful conditions are void. Conditions are strictly construed by the courts. The usual conditional words are "On condition," "Provided always," "Provided nevertheless," "For that," etc. Performance of stipulations in a bond should be complete and effectual. Any inconsiderable failure to perform is non-performance. On forfeiture of a bond the court will not permit a man to take more than his principal, interest and expenses. Bonds or obligations for the faithful performance of duties, clerical, official and otherwise, form a familiar and almost universal part of modern business procedure. Their forms vary in the different States, but their aim and legal gist remain the same.

When, Where and How to Bring Suit and Collect Money.

Inquiry as to Methods.—When a claim, debt or demand is due or overdue; when payment is unreasonably deferred or refused; when satisfaction can only be had by aggressive action on the part of the creditor, it becomes necessary for him to inquire into the various methods of collecting or securing such claim, etc.

Satisfaction of Claims.—As between parties a claim may be satisfied, paid or adjusted in any manner, as by part payment, services, goods, etc. It may also be secured in various ways, by note of hand; by note of hand with a sufficient endorser; by an order on and accepted by a third responsible party; by a mortgage, pledge, etc.

Arbitration.—When parties are unable to adjust claims, debts or demands between themselves, and wish to avoid the expense and incident of a suit at law, they may agree upon a person or persons before whom to submit the points of controversy, and abide his or their decision.

Employing an Attorney.—Whether the demand, debt or claim be disputed or not, it is often necessary to commence an action or suit for its recovery, to which suit a legal defence, set-off or counterclaim must be interposed, or judgment will be obtained so far as the demand, etc., is proved, often for the amount (sometimes unjustly) claimed. Where the parties are in the same neighborhood, or at a convenient distance, the matter may be attended to personally or by agent or attorney. Where they reside or do business at a distance from each other, this must be done through agents or attorneys. In the latter case, the following forms of correspondence may be observed by the creditor:

LETTER OF INQUIRY.

Place ——, Date —, 18—.

O. S., Esq., Attorney-at-law, at ——, in ——, in —— County,
State of ——.

Dear Sir:—I herewith enclose you a copy of an account *or* note, *or other evidence of debt* (*naming it*), in my favor and against R. P., of ——, engaged in (*state business*) at ——, in your city (or county). Be kind enough to state your terms and prospect of collection, and oblige yours, etc.,

S. M.

ORDER TO COLLECT.

Place ——, Date —, 18—.

O. S., Esq., Attorney-at-law, at ——, in ——, in —— County,
State of ——.

Dear Sir:—Please collect the enclosed (account *or* note, etc.) in my favor and against R. P., and remit the same, less your fees, as per terms stated in your note of ——, inst.: *Providing*, That if the same is found to be worthless, that it be returned to me without charge.

Yours, etc., S. M.

(*When security for costs is required add:*)

Enclosed find $ ——, as per your request, to pay cost in advance (*or* to secure the costs of this suit).

Proper Court for Suit.—Justices' Courts afford a simple and speedy means of collecting small claims and demands without delay, and their judgments are, when filed in the office of the clerk of the proper court, as efficient a lien of the debtor's real estate as the judgment of a court of record. This is a simple and inexpensive mode of obtaining a judgment and lien. The proceedings of courts of general jurisdiction are more direct, and must be resorted to for the collection of large claims and enforcing general remedies.

Time Limitation.—By the common law, a party who had any legal ground of complaint against another might compel him to answer in a court at such time as suited his convenience. This privilege was not only productive of inconvenience, but often of great injustice. Parties might, and often did, wait till witnesses were dead, or papers destroyed, etc., and then proceed to enforce claims which at an earlier date might have been honestly defeated. To prevent these evils, insecurity in title, uncertainty of tenure of property, and fruitful subjects of litigation, statutes were passed, limiting the time within which a party having a cause of action should appeal to courts for redress. These statutes are called Statutes of Limitation.

Costs of Suit.—The object of requiring security for costs in any case is, that the defendant may have some responsible party within the jurisdiction of the court to whom he can look for the payment thereof in the event he succeeds in the action or suit. When security for costs is required, a fee should accompany the claim, so that the costs may be secured by resident surety or paid at the commencement of the action or suit.

Of the Summons.—In a suit or action a summons notifies the defendant to appear at a certain time and place to answer whether he owes the debt or not, and if he has a set-off or defence, to then present it.

Nature of a Capias.—An order of arrest or capias compels him not only to answer the debt, but also the acts of fraud in contracting or afterwards trying fraudulently to cheat his creditor out of his dues, and may also commit him to prison.

Nature of Attachment.—An order of attachment effects the seizure of such goods and property as can be found.

Of a Garnishee.—Garnishee or trustee process effects a discovery of goods, debts, effects, etc., in the hands of outside or third parties, and compels their delivery of the same to satisfy such judgment as may be obtained.

Arrest and Imprisonment.—Arrest and imprisonment for debt are proceedings of so summary a character that few persons of responsibility will risk either without the strongest evidence to support the one, or as a last means of obtaining satisfaction of a judgment through the other. Arrest is allowed in many of the States, but only in cases of fraud; fraud in obtaining goods, moneys, etc., or fraudulently secreting, selling, removing his property to avoid the payment of just debts, etc. Imprisonment for debt is, with a few exceptions, generally abolished.

Proceedings in Arrest.—The proceedings are generally as follows: An affidavit is made by the creditor, his agent, or attorney, charging the debtor with the acts of fraud, etc. A bond is given by the creditor to indemnify the debtor if his arrest should be wrongful, etc. A writ is then issued for the apprehension of the debtor. When arrested, the debtor is brought before court to answer the charges of fraud, which, if proved, justify his imprisonment until he gives up the goods, property, etc., or is lawfully discharged from confinement.

Nature and Effect of Judgments.—Judgments, once obtained, are evidence to the whole world of the facts they contain—they cannot be impeached or *disputed*. The only way to affect them is to pay or satisfy them. They may be transferred from one county to another, from State to State, from country to country, and from court to court; they always face the debtor, and are always ready for any excess over and above the exemptions allowed by law. They gradually increase by the addition of interest.

Of Courts and Judges.—A judge or justice cannot sit or act in cases where he is a party; or is interested, or where he is related to either party by consanguinity or affinity.

A judge or justice cannot practice in his own court.

A judge or justice will not have a partner practice in his own court.

A judge or justice will not take part in a trial when his partner is attorney or counsel therein.

A judge or justice will not have a voice in decisions where he has been attorney or counsel.

Partners of clerks of judges or court officers do not practice before their judges.

Clerks of courts and other ministerial officers do not practice as attorneys in their own courts.

Courts are always open to the public.

Language of Proceedings.—Legal proceedings must be in the English language, without abbreviation; numbers may be expressed in figures.

Who May Sue.—A party may always appear in person or by attorney. Any person of full age and sound mind may prosecute or defend any action or suit of his own, or any defence against an action or suit brought against him by another, in any court or tribunal.

Who May Conduct a Case.—Any person of good moral character, although not an attorney, may manage, prosecute, or defend the suit of another person, if he is specially authorized to do so by the party for whom he appears. This authority may be by request when in court, or by written authority when the party suing, or sued, is absent.

Where Costs Fall.—Costs of suit generally fall upon the losing party; whatever costs have been prepaid are included in the bill of costs.

Where to Sue.—An action or suit must be brought before a court or judge or justice, who has a right to and can legally hear and determine it, otherwise his judgment would be like that of any other person without authority.

Power of Justices.—A justice of the peace has the right and authority to hear and determine actions or suits upon accounts, bills, bonds, contracts, judgments, notes, etc., as well as for damages in some instances, and many other things, up to a certain sum or amount, beyond which he cannot lawfully go, even though the parties to the suit agree that he may; for the law has said what he shall do, and this is his only authority. On the other hand justices of the peace cannot sit to try the title to land, suits for slander, libel, breach of marriage contract, etc., for they have no authority by law to do so, and, besides, they are specially prohibited by law from trying suits of this character.

Jurisdiction of Justices.—The justice having the right and authority to try the matter, in order to exercise it upon application of a party suing, must bring the party required to answer before him; this is done by a summons, and in suits before justices it is often absolutely necessary to sue a person in *the same town or township in which he resides,* though generally he may be sued anywhere in the county.

Voluntary Appearance.—Parties may, however, appear before any justice or court, and in any county, township or place they choose, and there submit their controversy.

Submission of Demand.—The plaintiff's demand or cause of action should be given to the court or justice to be filed when he obtains his summons. The defendant's set-off or defence should be given to the court or justice when he appears on the day of trial or by his evidence.

Conducting Suit by Agreement.—When suit is begun by agreement, the parties appear before the court of justice and submit their controversy, with such evidence as they may require or present, and the court or justice decides such controversy, and so enters his judgment upon his docket or record, and judgment stands and execution issues in the same manner as in an ordinary action or suit.

Suit by Legal Process.—Upon application (and filing one's account, bill, bond, claim, demand, note or other "cause of action," which is called a "complaint," "statement of demand," "bill of particulars," etc., according to the custom of the court), a summons is issued and directed to the constable or other officer, who serves it upon the party complained of, who is called the defendant. This summons commands the defendant to appear before the court or justice at a certain place and time, to answer the plaintiff's demand (describing it), and to set up whatever defence he may have to it. In addition to the *summons* (which is merely a notice to appear and answer), there are cases in which the defendant may be *arrested,* and also cases where his goods and effects may be *attached,* and also the money and property due him from persons indebted to him or having such property, may be taken or retained.

Compulsory Attendance of Witnesses.—Witnesses may be compelled to attend and give their evidence. The party desiring their evidence should give their names to the court or justice and request him to subpœna them for the trial; and if they fail to attend, he should request the court to compel their attendance, which is done by attaching them and bringing them forcibly into court, there to answer for their contempt or excuse it, and give their evidence in the case as well.

Oath of Witness.—Every person offered as a witness must be affirmed or sworn before giving any testimony.

Trial of the Suit.—On the day of trial the party may conduct his own suit or defence, or have an attorney or other competent person do so for him.

If a party is under twenty-one years of age, he must sue or defend by guardian or next friend. (The court will attend to this upon the suggestion of any person.)

All parties should be in prompt attendance at the time fixed for trial (and in no event later than *within* one hour thereafter, though in some cases this will be too late).

Of Trial by a Jury.—If a jury is desired by either party, such party should request it of the court or justice, who issues a summons or venire for the number of jurors required by law or agreed on by the parties.

When it is time for the jurors to appear their names are called out by the officer, and they are seated together and sworn for the purpose of ascertaining their competency to sit in the case.

If there are persons upon the jury that a party would rather dispense with, he can request the court or justice to excuse them from serving. The number of objections are limited, and therefore a party should discreetly choose the most objectionable persons first.

The jury will then be sworn by the court or justice and hear the proofs and allegations of parties, and after the court's remarks or charge, if there be any, they retire and agree upon their verdict, and return it to the court, and the court thereupon gives judgment accordingly.

Of Trial by the Court.—If a jury is not desired by either party, the parties, if present, submit their proofs by witnesses or other testimony, and make whatever argument they wish to, and thereupon the court or justice finds for the party having, in his opinion, the preponderance or greater weight of evidence to support his side of the case, and renders and enters judgment accordingly.

Failure to Appear.—If the defendant, being served with a summons, neglects to appear, the court or justice will proceed to hear the proofs of the plaintiff, and give judgment thereon.

Statement and Rebuttal.—The plaintiff's account, bill, bond, claim, demand, note, or other cause of action, and defendant's matters of defence, when required by the law, the court or justice or plaintiff, being filed and their substance or copy entered by the justice on his docket or record, the plaintiff proceeds and proves his account, demand, etc., by such proofs as is necessary, and the defendant, on the close of the plaintiff's evidence, produces his proofs, in case he has any, to defeat, lessen, or modify the plaintiff's demands or charges against him.

A Set-off.—When a defendant establishes a set-off equal to or exceeding the plaintiff's claim, judgment will be rendered in his favor, and also for the costs of this suit. But if it be for less than the plaintiff's claim, the plaintiff will have judgment for the residue and also for costs.

Judgment and Costs.—When the defendant's defence defeats the plaintiff's claim only, judgment will be in the defendant's favor for costs.

If the plaintiff fails to appear on the day of trial, the case may be dismissed with costs; and if the defendant have a set-off, this may be proven and judgment obtained.

If the defendant fails to appear on the day of trial, the plaintiff will take judgment for so much of his claim as he proves, for the full amount often, although it really exceed his just dues.

Adjourning Trial.—A trial may be adjourned for a reasonable time by consent of parties, or on the application and oath of a party, on sufficient cause, as, the absence of a material witness or testimony, etc., but the application should be made before proceeding to trial.

Rendering Judgment.—Judgment may be rendered upon the admission or confession in person by the defendant, or upon being established by competent witnesses.

Judgment may also be rendered by dismissing the case without affecting its merits in any way; this occurs where a plaintiff fails to appear at trial, or at the time to which the case is adjourned, also when the plaintiff discontinues or withdraws his action. In such case the judgment is for costs only.

Of the Execution.—Execution follows upon judgment, in favor of the successful party in the action. It may issue at once, in a few days, weeks, or months, at the option of the party succeeding in the suit. After a time (generally defined by law) from the date of serving the last execution, the judgment, in general, must be revived before an execution can issue.

Kinds of Execution.—Execution is of four kinds:

1. Against the goods and chattels of the debtor. This may be effectual by an immediate issue and levy upon what goods may be found, and may be further assisted by the attachment, garnishee, or trustee process.

It may be defeated by the exemption law, assignment or insolvency law, or the corrupting of the officer who serves it.

2. Against the lands and tenements of the debtor. This second is made unnecessary by having a transcript of the judgment filed in the office of every clerk of a court of record of every county wherein the judgment debtor has lands, in the State where this judgment was rendered. (Executions must then be issued, within say —— years —different times in different States—or the judgment will cease to be *a lien* upon the real estate.)

If judgment is rendered in another State, then, in order to have it effectual in this State, suit must be brought on it, and then upon judgment on such judgment; a filing of transcripts in the offices of clerks of courts of record in each county where the debtor has lands, effects a lien as above stated, wherever filed.

3. Against the body of the debtor. This is allowed in cases of fraud.

4. Against all or either goods, chattels, lands, tenements and the body of the debtor, the latter, whenever fraud is found.

STATUTES OF LIMITATION FOR THE UNITED STATES, TERRITORIES AND CANADIAN PROVINCES.

LIMITATION by statute, as it relates to civil proceedings, is the time within which an action or suit may be begun on a claim, debt or demand, after the right of action accrues or rises and before it is barred or outlawed.

THE UNITED STATES AND TERRITORIES.	Claims Against Estates of Deceased Persons.		Injuries and Wages (Years).	Accounts and Book Debts (Years).	Notes and Bills (Years).	Judgments (Years).	Specialties[13] (Years).
	Months.	Years.					
Alabama	18		1	3	[1] 6	20	10
Alaska				6	6	10	
Arizona	10		1	3	5	5	4
Arkansas		2	3	3	5	10	5
California	4–10		3	2	[2] 4	5	4
Colorado		1	1	6	6	[7] 6	3–6
Connecticut	6–12		1–6	6	[11]	[3]	17
Delaware		1	1	3	6	[10]	20
District of Columbia	15–18		1	3	3	12	12
Florida		2	2	4	5	20	20
Georgia	12		1	4	6	[7] 7	20
Idaho	4–10		3	4	5	6	5
Illinois		2	1–2	5	10	20	10
Indiana		1	2	6	10	[6] 10	20
Indian Territory		2	1	3	5	10	5
Iowa	6–12		2	5	10	20	10
Kansas		1–3	1–2	3	5	5	15
Kentucky		2	1	[9] 5	[14] 15	15	15
Louisiana	12		1	3	5	10	30
Maine	18		2	6	[4] 6	20	20
Maryland	9		3	[9] 3	[5] 3	12	12
Massachusetts		2	2–6	6	[4] 6	20	20
Michigan	6–18		2	6	6	10	15
Minnesota	6–12		2	6	6	10	15
Mississippi	12		1	[15] 3	6	7	6
Missouri		2	2	5	10	10	10
Montana	4–10		2	3	8	10	5
Nebraska	6–18	or 2	1	4	5	5	10
Nevada	60 days		2–4	4	6	6	5
New Hampshire	6–9		2	6	6	20	20
New Jersey	9		2	6	6	20	16
New Mexico		1	2	4	6	7	6
New York		1	2	6	6	20	20
North Carolina	12		1	3	[1] 3	10	10
North Dakota	4–6		2	6	6	[12] 10	10
Ohio	12		1–4	6	15	21	15
Oklahoma Territory	4–6		1–2	3	5	5	5–15
Oregon	6		1–6	6	6	10	10
Pennsylvania		1	1	6	6	20	20
Rhode Island	3–9		1	6	6	20	20
South Carolina		1	2–6	6	6	20	20
South Dakota	4–6		3	6	6	20	20
Tennessee		2–3	1	6	6	10	
Texas	12		1–2	2	4	10	4
Utah	4–10		1	4	6	8	4
Vermont	6		2	6	[8] 6	8	8
Virginia	12		5	2	5	10	10
Washington		1	1–2–3	3	6	6	6
West Virginia	18		5	5	10	10	10
Wisconsin	6		2	6	6	20	10–20
Wyoming		1	4	8	5	5	10
THE DOMINION OF CANADA.							
Manitoba				6	6	10	
New Brunswick	18		2	6	6	20	20
Newfoundland				6	6	20	
Nova Scotia	18		1	6	6	20	20
Ontario		1	1	6	6	20	20
Prince Edward Island				6	6	20	
Quebec			1–2	5	5	30	20

---

[1] Under seal, ten years.
[2] If made in State; if outside, two years.
[3] No law and no decision regarding judgments.
[4] Under seal, twenty years.
[5] Under seal, twelve years.
[6] Real estate, twenty years.
[7] Becomes dormant, but may be revived.
[8] Under seal, fourteen years.
[9] Action on merchants' accounts must be commenced in two years.
[10] Ten years in New Castle County, twenty years in Kent and Sussex Counties, Del.
[11] Negotiable notes six years, non-negotiable seventeen years.
[12] Ten years in new law, twenty years in old law.
[13] These are Instruments of Writing under seal, as Bonds, Contracts, Conveyances, Deeds, Mortgages, and the like. They are not merely written, but *signed, sealed and delivered* by the party bound by them. Witnesses and seals are often required by these instruments.
[14] If discounted in banks, five years.
[15] When acknowledged in writing, six years.

The Laws and Methods for Collecting Claims, Debts and Demands in all the States of the Union and Canadian Provinces.

Alabama.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court, except for torts, when jurisdiction is limited to $50; appeals may be taken to Circuit Court.

Arrest or imprisonment for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit are generally recovered by party gaining same. Non-resident creditors must give security for costs.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and three days in Justices' Courts.

Execution may issue in the Circuit Court immediately after adjournment of court, and in Justices' Court in five days, unless such execution is stayed. Such stay is allowed in Justices' Courts.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only after levying of an execution.

Arizona.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court when title to real estate is not involved. When over $300 in the District Court.

Arrest and imprisonment for debt is not allowed, except in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit are recovered by successful party, unless otherwise ordered. Plaintiff in any civil suit may be ruled to give security for costs within ten days.

Defendant must answer court summons within ten, twenty or thirty days, according to locality, and a justice's summons within five, ten, fifteen or twenty days.

Executions within five years are executed by the sheriff, and returnable in not less than ten nor more than ninety days, unless stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon the levy of an execution.

Arkansas.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $100 in the Circuit Court.

Arrest and imprisonment for debt is not allowed, except in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured by non-residents in advance, or the suit will be dismissed.

It is at least ten days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and five days in Justices' Courts where the amount does not exceed $50.

Execution can be stayed for six months, and cannot be issued until ten days after judgment, except for cause shown by plaintiff.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

California.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court, and when over $300 in the Superior Court.

Arrest and imprisonment for debt is not allowed, except in cases of fraud or intended removal from State.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, and are allowed to the party recovering judgment. Non-residents may be required to give security for costs.

It is at least ten to thirty days between the service of summons on the debtor and obtaining of judgment in the Superior Court, and five to twenty days in Justices' Courts, according to locality.

Execution may issue from the Superior Court at any time within five years after judgment.

The judgment of a Justice of the Peace, when an abstract thereof is filed and recorded in the office of the Recorder of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only on levying of an execution.

Colorado.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When less than $2,000 in the County Court. When over $300 in the District Court.

Arrest and imprisonment for debt is not allowed, except in cases of fraud.

Attachment is allowed against non-residents, foreign corporations and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be provided for by bond in the case of non-resident plaintiffs.

It is at least ten to forty days between the service of summons on the debtor and obtaining of judgment in the District or County Court, and five to fifteen days in Justices' Courts.

Execution may issue in Justices', County and District Courts after entering of judgment.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the Recorder of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Connecticut.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. From $100 to $500 in Court of Common Pleas of Hartford, New Haven, Fairfield and New London counties. City Courts also vary in jurisdiction. The Superior Court has jurisdiction in law and equity where the amount involved exceeds the sum of $500.

Arrest and imprisonment for debt is allowed in cases of fraud and torts.

Attachment is allowed.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

Defendant must answer, in the Superior Court and Court of Common Pleas, within thirty days from return day, and afterwards pleadings must advance one step in every twenty days.

Execution may issue in any court after entering of judgment. The judgment is a lien upon personal property only upon levy, and upon real estate upon filing certificate of record. The latter may be foreclosed as a mortgage.

Delaware.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When over $200 in the Superior Court.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be required of non-residents, and security for same in certain Superior Court cases.

Judgment of Court of Record, if no defence entered, is had at first term after suit brought. In Justice's Court in four days after summons served.

Execution may issue after entering of judgment.

The judgment recovered in a Superior Court, from the time of entry, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon the levy of an execution.

District of Columbia.—In general. The limit for suits or claims before Justices of the Peace is $300. They have exclusive jurisdiction in claims of less than $100; also jurisdiction in replevin up to $300.

Arrest or imprisonment for debt is not allowed.

Attachment is allowed against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance in Justices' Courts, or the suit will be dismissed, and so on demand in Circuit Court.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the Supreme Court, and five days in Justices' Courts, or some brief period.

Execution may issue in the Supreme Court after entering of judgment, and in Justices' Courts in four days, unless such execution is stayed. Such stay is allowed in Justices' Courts only, except on motion to vacate or appeal.

Judgment of the Supreme Court is a lien on realty from date of rendition, on personalty from issue of execution. Such judgment must be enforced within twelve years, and may be revived for a like term. Judgments in Justices' Courts are liens from date of filing with clerk of Supreme Court.

Florida.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. The Circuit Court is unlimited.

Arrest for debt is not allowed.

Attachment is allowed against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

It is at least ten days before time, exclusive of rule day afterward, between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and ten days in Justices' Courts.

Execution may issue in any court after entering of judgment.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the clerk's office of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Georgia.—In general. Less than $100 may be collected in a Justice's Court. Not less than $50 nor over $300 in a County Court. The Superior Court has general jurisdiction.

Arrest for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance only when demanded.

It is at least fifteen days between the service of summons on the debtor and obtaining of judgment in the Superior Court, in Savannah City Court ten days, Atlanta City Court fifteen days, and ten days in Justices' Courts.

Execution may issue in any court after entry of judgment, unless stayed. Judgment is general property of defendant, except choses in action, and on these from date of levy. All judgments bind personalty and realty from date, except as otherwise provided.

Idaho.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When $500 or less in the Probate Court. When over $1,000 in the District Court.

Arrest and imprisonment for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, and against residents in case of unsecured contract debts.

Parties to the suit, or interested therein, are competent witnesses.

Costs: Non-residents may be required to give security for costs of suit.

It is at least ten to thirty days between the service of summons on the debtor and obtaining of judgment in the District Court, and three days in Justices' Courts.

Execution may issue in any court after entering of judgment.

The judgment of a Justice of the Peace, when an abstract thereof is filed and recorded in the office of the clerk of District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution or attachment.

Illinois.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When less than $1,000 in County Court. The Circuit Courts are unlimited.

Arrest and imprisonment for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit follow judgment, and can be collected on execution.

It is at least ten days between the service of summons on the debtor and obtaining of judgment in a Court of Record, and three days in Justices' Courts.

Execution may issue from Courts of Record any time after entering of judgment, and in Justice's Court after twenty days, except in special emergencies.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Indiana.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. The Circuit Courts are unlimited.

Arrest for debt is not allowed except in cases of actual fraud.

Attachment is allowed against non-residents and debtors concealing themselves so that service cannot be had on them when the debt is due.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or suit dismissed, in Circuit Court if plaintiff is a non-resident of State, or in Justice's Court if plaintiff is a non-resident of the county. Costs not required to be secured in other courts.

At least ten days in Circuit and three in Justice's Court must intervene between summons and judgment. In Justices' Courts execution may issue, unless stayed, in four to ten days after judgment.

A transcript of a Justice of the Peace judgment, filed in Circuit Court of any county, is a lien on debtor's real estate in said county. A judgment is a lien on personalty only from the time execution comes into the hands of the officer.

Iowa.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court; by consent, $300. The District Courts have unlimited jurisdiction.

Arrest and imprisonment for debt is not allowed, except in cases of fraud, and in proceedings supplemental to execution.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit, when plaintiff is a non-resident may be secured in advance, in courts of general jurisdiction, when required, or the suit will be dismissed—not in Justices' Courts.

It is at least ten to twenty days between the service of summons on the debtor and obtaining of judgment in the District Courts, and five to fifteen days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, of the United States District and of the United States Circuit Court, when a transcript thereof is filed in the office of the clerk of the State District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Kansas.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. The District Court is unlimited.

Arrest for debt is not allowed except in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

Personal service of process may be made any time before return day. In service by publication forty days must elapse from date of first notice before judgment rendered.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when an abstract or transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Kentucky.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court in any county in the State. In Quarterly Courts when less than $200. The Circuit Courts are unlimited (except where jurisdiction is given exclusively to another court).

Arrest and imprisonment for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, foreign corporations, etc., and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance if the party plaintiff be a non-resident.

It is at least ten to sixty days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and five days in Justices' Courts.

Execution may issue in ten days after entering of judgment, unless such execution is stayed.

Judgments are not liens except from date execution is placed in hands of proper officer. Executions from Justices of Peace are against personalty only.

Louisiana.—In general. Justices' Courts and in New Orleans City Courts have jurisdiction where claim is not over $100. District and Justices' Courts concurrent in claims over $50 and less than $100 in New Orleans, and in State the District Court has exclusive jurisdiction in claims over $100.

Arrest for debt is allowed only to secure the person of the debtor to answer the suit.

Attachment is allowed against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance or the suit will be dismissed.

It is at least ten days between the service of summons on the debtor and obtaining of judgment in the District Court, and three days in Justices' and City Courts.

Execution may issue in the District Court ten days after entering of judgment, and in Justice's Court in three days, unless such execution is stayed.

The judgment of a Justice of the Peace when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Maine.—In general. A claim, debt or demand for less than $20 may be collected in a Justice's Court. When in Cumberland and Kennebec Counties for $20 to $500 in the Superior Court. When over $500 in the Supreme Judicial Court.

Arrest and imprisonment for debt is not allowed on debts contracted since April 18, 1887, unless the debtor is about to leave the State.

Attachment may be made as of course where debt exceeds $20, one mesne process.

Parties to the suit, or interested therein, are competent witnesses.

In Justices' and Municipal Courts seven days must intervene between service of summons and judgment; in the other courts fourteen days. Corporations must have thirty days' notice in all courts, either as trustees or principal defendants.

Execution may issue in any court in twenty-four hours after judgment, unless stayed by appeal. Judgment is a lien on personalty only upon levy.

Maryland.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. In Baltimore City when the debt or damage claimed does not exceed $200. When over $50 in the Justice of the Peace and Circuit Courts of counties having concurrent jurisdiction.

Arrest or imprisonment for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance by non-resident plaintiffs and appellants.

It is about seven to fifteen days between the service of summons on the debtor and obtaining of judgment in various courts, and six to fourteen days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only after writ of execution is in officer's hands.

Massachusetts.—In general. Superior Court has jurisdiction over $100; Trial Justices up to $300; Police and District Courts up to $1,000; Boston Municipal Court up to $2,000; other Municipal Courts up to $1,000.

Arrest or imprisonment for debt allowed if debtor is known to have property which he will not apply in payment.

The poor debtor's oath when taken (voluntarily or by permission of the court) exempts the debtor from imprisonment, or releases him if in custody.

Attachment is allowed in all cases on commencement of suit; any creditor may attach first and prove his debts, etc., afterwards.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance by non-residents, or the suit will be dismissed.

It is at least fourteen days between the service of summons on the debtor and obtaining of judgment in the Supreme, Judicial or Superior Court (ten days is given to appear and thirty days to file an answer), and seven to sixty days in Justices' Courts.

Execution may issue twenty-four hours after judgment, and is returnable in sixty days from its date. Original execution must be issued within one year. Stay may be had by order of court.

The judgment is a lien upon personal property only when writ is in sheriff's hands.

Michigan.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $100 in the Circuit Court.

Arrest and imprisonment for debt is allowed in cases of fraud and breach of trust.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit in Circuit Courts must be secured in advance where plaintiff is a non-resident, or the suit will be dismissed.

It is at least ten to twenty days between the service of summons on the debtor and obtaining of judgment in the Circuit Courts, and two to six days in Justices' Courts.

No stay of execution allowed on a judgment from a Court of Record. Five days allowed for appeal in Justice's Court.

A transcript of a Justice's judgment with security for stay of execution may be filed in the Circuit or District Court clerk's office, and will then have the same effect as a judgment of such Circuit or District Court.

The judgment is a lien upon property only upon levy of an execution.

Minnesota.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. The District Court is unlimited.

Arrest and imprisonment for debt is not allowed.

Attachment is allowed against non-residents, foreign corporations, etc., and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance by non-resident plaintiffs.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the District Court, and ten days in Municipal and Justices' Courts.

Execution may issue in the District Court at once after entering of judgment, and in Justice's Court in ten days, unless such execution is stayed.

The judgments of United States Courts, Circuit Courts of other counties, and Justices of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Mississippi.—In general. A claim, debt or demand for less than $200 principal may be collected in a Justice's Court. When over $200 in the Circuit Court.

Arrest or imprisonment for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

It is at least five days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and five days in Justices' Courts. Non-residents may be summoned by three weeks' publication.

Execution in Chancery and Circuit Courts issues within twenty days after court adjourns, and in Justices' Courts not before five days after judgment. Stay allowed only in Justices' Courts.

Judgments, whether rendered in Justice of the Peace or Circuit Courts, when properly enrolled, are a lien in order of enrollment, and from the date thereof, on all of debtor's property, not otherwise exempt. Code 1892, Sections 757 and 2413.

Missouri.—In general. Justices' Courts have jurisdiction in civil contracts up to $250; in cities or counties over 50,000 population, up to $300; in replevin, $350; in cities over 300,000 population, up to $500. Circuit Court has unlimited jurisdiction in cases exceeding $50. In some counties Common Pleas Courts concur with District Court.

Arrest or imprisonment for debt is not allowed.

Attachment is allowed against non-residents, foreign corporations, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

It is at least fifteen days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and ten days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment of the Circuit Court is a lien upon personal property only upon levy of an execution of a Justice's Court when delivered to the constable.

Montana.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $50 in the District Court.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed where debt is due, and where defendant is about to leave the State or dispose of his property to defraud creditors.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance of non-residents and foreign corporations, or the suit will be dismissed.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the District Court, and four to ten days in Justices' Courts.

Execution may issue in any court after entering of judgment.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Nebraska.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When over $100 and less than $1,000 then in the County Court. When over $50 in the District Court.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, if plaintiff be a non-resident or company.

It is at least ten to thirty days between the service of summons on the debtor and obtaining of judgment in the District Court, and three to twelve days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Nevada.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $300 in the District Court.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, or where money is not secured by lien or pledge.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

It is at least ten to forty days between the service of summons on the debtor and obtaining of judgment in the District Court, and one to ten days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed. Such stay is allowed by order of the court.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the Recorder of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

New Hampshire.—In general. A claim, debt or demand for less than $13.33 may be collected in a Justice's Court, and if less than $100 in a Police Court. When over $100 in the Supreme Judicial Court.

Arrest allowed in torts and attempt to defraud, if the plaintiff be a non-resident.

Attachment is allowed.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance if the plaintiff be a non-resident.

It is at least fourteen to twenty-eight days between the service of summons on the debtor and obtaining of judgment in the Supreme Judicial Court, and fourteen days in Justices' Courts.

Execution may issue in any court immediately after twenty-four hours' entering of judgment.

The judgment is a lien upon personal property only upon levy of an execution or attachment.

New Jersey.—In general. A claim, debt or demand, for less than $200 may be collected in a Justice's Court; $300 in District Courts in cities; over $100 in the Court of Common Pleas or Circuit Court; over $200 in the Supreme Court.

Arrest (except females) for debt is only allowed in cases of fraud, or on the debtor's removal, transfer or concealment of property to prevent its being realized by his creditors.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not. Other creditors may apply under the writ and receive pro rata.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, if required by the defendant, the plaintiff being a non-resident, or the suit will be dismissed.

It is at least ten to thirty days between the service of summons on the debtor and obtaining of judgment in the Common Pleas, Circuit or Supreme Court, and five days in Justice's Court or City District Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Common Pleas Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

New Mexico.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. When over $100 in the District Court.

Arrest for debt is allowed in certain cases.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit, if demanded, must be secured in advance, or the suit will be dismissed.

It is at least five to thirty days between the service of summons on the debtor and obtaining of judgment in the District Court, and five days in Justices' Courts.

In the District Court execution may issue one day after judgment; ten days in Justice's Court.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Probate Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

New York.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When less than $250 in the New York City District Courts. When less than $2,000 in a County Court. When less than $2,000 in the New York City Marine Court. The Supreme Court has unlimited jurisdiction.

Arrest and imprisonment for debt is not allowable except for fraud and tort damages.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, if required by the defendant, or the suit will be dismissed.

It is at least six to twenty days between the service of summons on the debtor and obtaining of judgment.

Execution may issue in any court after entering of judgment.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the County Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

North Carolina.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When over $200 in the Superior Court.

Arrest allowed only in frauds, tort damages, etc.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed.

It is at least ten days between the service of summons on the debtor and obtaining of judgment in the Superior Court, and two days in Justices' Courts.

Execution may issue in any court, after entering of judgment, unless such execution is stayed. Such stay is allowed in Justices' Courts only.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Superior Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

North Dakota.—In general. District Courts have unlimited jurisdiction; Justices' Courts where amount is not over $200 and no realty in dispute.

Arrest and imprisonment for debt is not allowed, except in cases of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance if demanded, or the suit will be dismissed.

It is at least thirty days between the service of summons on the debtor and obtaining of judgment in the District Court, and three days in Justices' Courts.

Execution may issue in District and Justices' Courts after entering of judgment.

The judgment of a Court of Record or Justice's Court is a lien on real estate, except homestead, from the time of the docketing of judgment in the county where it is rendered.

Ohio.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $100 in the Common Pleas and Superior Courts.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed against non-residents, foreign corporations and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit need not be secured in advance, except as to non-residents and corporations.

It is at least twenty-nine days between the service of summons on the debtor and obtaining of judgment in the Common Pleas or Superior Court, and three days in Justices' Courts.

Execution may issue in the Common Pleas or Superior Court after entering of judgment, and in Justices' Court in ten days, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Common Pleas Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Oklahoma.—In general. Justices' Courts have jurisdiction in civil cases where the amount does not exceed $100. Probate Courts have concurrent jurisdiction with District Courts up to $1,000.

Arrest not allowed in civil action except in aid of execution.

Attachment allowed against non-residents, and where debtor attempts to defraud.

Parties interested are competent witnesses in civil suits, except as to husband and wife in certain cases.

Costs of suit may be secured in advance, and, as a rule, *must* be, if plaintiff is a non-resident.

Summons in Justice's Court is returnable in not less than three nor more than twelve days; in District Court in ten days, and defendant must answer in twenty days from return day. Plaintiff has ten days to reply.

Judgments of Courts of Record are liens on realty from first day of term, except when rendered by confession or at same term cases began, when the lien dates even with the judgment. Judgments of Justices become liens when certified and filed in District Court.

Execution may issue directly returnable in sixty days in Court of Record, and thirty days in Justice's Court. Execution is a lien on personalty only from time of levy.

Oregon.—In general. A claim, debt or demand for less than $250 may be collected in a Justice's Court. When less than $500 in the County Court. The Circuit Court has unlimited jurisdiction.

Arrest for debt is allowed in case of fraud.

Attachment is allowed upon an unsecured contract for the direct paymen of money.

Parties to the suit, or interested therein, are competent witnesses.

Costs in actions in Justices' Courts may, in the discretion of the Justice, be secured in advance when demanded by the defendant, or the action will be dismissed.

It is at least ten days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and not less than six nor more than twenty days in Justices' Courts.

Execution may issue in any court immediately after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the County Court and docketed in the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Pennsylvania.—In general. A claim, debt or demand for less than $300 may be collected at an Alderman's, Justice's or Magistrate's Court. In Philadelphia, less than $100, Magistrate's Court. When over $100 in the Common Pleas Court.

Arrest for debt is allowed in cases of fraud.

Attachment is allowed against debtors in cases of fraud, and against non-residents.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, when required by the defendant, if plaintiff is a non-resident, or the suit will be dismissed.

It is at least fifteen to thirty days between the service of summons on the debtor and obtaining of judgment in the Common Pleas Court, and five to eight days in Justice's Court.

Execution may issue in any court after entering of judgment unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Common Pleas Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Rhode Island.—In general. District Courts have exclusive jurisdiction except as otherwise provided, in civil cases up to $300. Common Pleas Courts have original jurisdiction of claims of $300 and upwards, and are concurrent with Supreme Court.

Arrest for debt allowed, except as provided. Females not arrestable on original writ on contracts.

Attachment allowed against non-residents, and against debtors in cases of concealment, fraud or absconding.

Interested parties are competent witnesses.

Costs must be secured in advance, or suit dismissed, when plaintiff is a non-resident.

District Court writs are returnable in not less than six or more than twenty days before return day.

Judgment may be entered on second day of term where no defence offers. Judgment is not a lien on real estate till after levy.

Execution may issue in twenty-four hours after judgment, unless otherwise ordered. Court may stay for cause.

South Dakota.—In general. Circuit Courts have unlimited jurisdiction. County Courts have original probate jurisdiction and concurrent jurisdiction with Circuit Courts in counties whose population is over 20,000, to amount of $1,000; in other counties to $500. Justices' Courts have jurisdiction where claim does not exceed $100 and title to real estate is not involved.

Arrest allowed in cases not arising out of contract, where the defendant is non-resident or about to remove, for penalties, damages for breach of promise, embezzlement, concealment of property, fraud.

Attachment issues against non-residents, and against debtors for concealment of property, removal, or fraud.

Interested parties may be witnesses.

In Circuit or County Courts defendant has thirty days, exclusive of day of service, in which to answer before judgment can be had for default. In Justices' Courts summons returnable in not less than three nor more than twelve days, and judgment may be entered on day of return. Service may be had by six weeks' publication in newspapers where defendant cannot be found.

Money judgments in Circuit or County Courts are a lien on all real property, except homestead, in any county where judgment or transcript of same is entered. Execution may issue any time in five years, returnable to Circuit and County Courts in sixty and to Justices' Courts in thirty days.

South Carolina.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. The Common Pleas Court has unlimited jurisdiction.

Arrest for debt in certain cases.

Attachment is allowed against non-residents, foreign corporations and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the Common Pleas Court, and twenty days in Justice's Court, where more than twenty-five dollars are demanded, and five days where less than that amount is demanded.

A certified transcript of a judgment docketed in the Circuit Court clerk's office of the county where rendered, is a lien upon the real property of the judgment debtor therein.

Execution may issue five days after adjournment.

Tennessee.—In general. A claim, debt or demand for less than as follows: Accounts, bills of exchange against acceptor, $500; promissory notes against makers and indorsers, where demand and notes are expressly waived, $1,000 (against other indorsers, $500); may be collected in a Justice's Court. When over $50 in the Circuit Court.

Arrest for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be secured in advance, or the suit will be dismissed.

It is at least five days between the service of summons on the debtor and obtaining of judgment in the Circuit Court; in Justices' Courts the date of return is fixed by the officer and judgment had on day of trial.

Execution thirty days after adjournment; in Justice of the Peace Court two days after judgment.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the Register's office of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Texas.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. When over $200 and under $1,000, in the County Court. When over $500 in the District Court.

Arrest for debt is not allowed.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be secured in advance, or the suit will be dismissed.

Citations shall be served at least ten days before return day of courts, to compel defendant to plead at return day. Citations issued too late, or which cannot be served in time, must seek service to next term of court.

Execution may issue in the County and District Courts after twenty days from final judgment; in Justices' Courts on eleventh day after final judgment.

Utah.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $300, in the District Court.

Arrest for debt is allowed only in case of an absconding debtor, and then an order must first be obtained, on affidavit of plaintiff, from the trial court.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, or the suit will be dismissed if plaintiff is a non-resident.

It is at least ten to twenty days between the service of summons on the debtor and obtaining of judgment in the District Court, and two to ten days in Justices' Courts.

Execution may issue in any court after entering of judgment in that court.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Vermont.—In general. A claim, debt or demand not above $200 may be collected in a Justice's Court. When over $200 in the County Court.

Arrest for debt only in special cases is allowed. Females are not subject to arrest for debt.

Attachment is allowed of defendant's property on mesne process, and held to respond to final judgment if taken on execution.

Trustee process is allowed in all actions founded upon contract, express or implied, where the claim sought to be enforced and the credits in the hands of the trustees exceed $10.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be secured in advance.

Every writ and process must be served within twenty-one days from date, and defendant must appear within forty-two days. In Justices' Courts not less than six nor more than sixty days before trial day.

Execution is issuable the day after adjournment of court, returnable in sixty days.

Virginia.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court, but if over $20, defendant may remove to County Court. The Circuit Court has general jurisdiction where the amount is over $20.

Arrest for debt not allowed, except of absconding debtors.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance when plaintiff is a non-resident.

It is at least two rule days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and sixty days in Justices' Courts.

Execution may issue in any court, after entering of judgment, unless stayed by forthcoming bond.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the County Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Washington.—In general. A claim, debt or demand for less than $100 may be collected in a Justice's Court. The Superior Court has general jurisdiction where the amount is over $100.

Imprisonment for debt not allowed except in case of absconding debtors. (Constitution of State.)

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit, if brought by a non-resident of the State, must be secured in advance, if demanded by the defendant, or the suit will be dismissed.

It is at least twenty to sixty days between the service of summons on the debtor and obtaining of judgment in the Superior Court, and six to twenty days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the County Clerk's office of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

West Virginia.—In general. A claim, debt or demand for less than $300 may be collected in a Justice's Court. When over $50, in the Circuit Court.

Arrest for debt is allowed in case of fraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be secured in advance, where plaintiff is a non-resident.

It is at least two rule days between the service of summons on the debtor and obtaining of judgment in the County Courts. Summons before a justice may be made returnable in five days.

Execution may issue in any court after entering of judgment, unless such execution is stayed. Such stay is allowed in Justices' Courts.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the County Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Wisconsin.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. The Circuit Court has general jurisdiction.

Arrest allowed in tort actions only.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, if demanded, and plaintiff be a non-resident.

It is at least twenty days between the service of summons on the debtor and obtaining of judgment in the Circuit Court, and six days in Justices' Courts.

Execution may issue in any court immediately after entering of judgment, unless such execution is stayed. Such stay is allowed in Justices' Courts only.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the Circuit Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only when levied upon under an execution.

Wyoming.—In general. A claim, debt or demand for less than $200 may be collected in a Justice's Court. The District Court has general jurisdiction.

Arrest for debt is allowed where debtor attempts to defraud.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit may be secured in advance when the plaintiff is a non-resident.

It is at least thirty to thirty-five days between the service of summons on the debtor and obtaining of judgment in the District Court and three days in Justices' Courts.

Execution may issue in any court after entering of judgment, unless such execution is stayed. Such stay is allowed in Justices' Courts and in District Courts.

The judgment of a Justice of the Peace, when a transcript thereof is filed in the office of the clerk of the District Court of the county where rendered, is a lien upon the debtor's real estate in such county. The judgment is a lien upon personal property only upon levy of an execution.

Canadian Provinces. New Brunswick.—Jurisdiction of Courts: Magistrates, $20; in tort, $8. Parish Courts, $80 in debt, $32 in tort. County Courts, $20 to $400 in debt, $200 in tort. Supreme Court, $400 and upwards.

Arrest: On affidavit setting forth cause of action, amount due, and that arrest is not made for the purpose of vexing or harassing debtor. Discharge upon showing no property.

Garnishment allowed in Supreme and County Courts where judgment is not less than $80, $40 of which must be for debt.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, when required by the defendant, or the suit will be dismissed.

It is at least thirty days between the service of summons on the debtor and obtaining of judgment in the County Court, and sixty days in the Supreme Court.

Execution may issue in any court after entering of judgment.

Nova Scotia.—In general. A claim, debt or demand for less than $80 may be collected in a Justice's Court. When not less than $20 and not over $400 in the County Court. When over $80 in the Supreme Court.

Arrest for debt allowed in certain cases.

Attachment is allowed against non-residents, and against debtors in cases of fraud, whether the debt is due or not.

Parties to the suit, or interested therein, are competent witnesses.

Costs of suit must be secured in advance, if required, or the suit will be dismissed.

Execution may issue in any court after entering of judgment.

Ontario.—In general. Claims for $100 or less on open accounts, and $200 or less on defendant's signature, collectible in Division Court, but personal actions limited to $60. Claims and personal actions not above $200, collectible in County Court, and up to $600 where claim is ascertained by defendant's signature or act of parties. High Court of Justice has jurisdiction of all other cases.

Arrest and imprisonment for debt is restricted to $100 and over, and to cases of absconding or fraudulent creditors. Also every one is liable to imprisonment who mutilates books and papers in defraud of creditors or of employers, or conceals deeds, or registers false titles to lands.

Attachment for debt is allowed against property of and debts due absconding debtors.

Parties to a suit, or persons in whose behalf any suit, action or other proceeding is brought, instituted, or opposed, or defended, are, with some exceptions, competent and compellable to give evidence *viva voce* or by deposition, etc.

Costs of suit by non-residents should be secured in advance, or the suit may be dismissed.

Judgments of Division Courts are obtained in from twelve to sixteen days, and execution had against lands after return of N. B. where amount is over $40.

Execution writs issue from the offices where judgment is entered; in the Superior Courts of Law after transmission of judgment roll to the principal office. Such writs may issue at once into any county, etc.

Quebec.—In general. A party having a claim, debt, or demand against another, enjoying the free exercise of his rights, may sue therefor in the proper court.

Action before the Superior Court is instituted by summons, issue, sealed and signed by the prothonotary upon written requisition of the plaintiff, either in the French or English language.

Jurisdiction of Courts: Circuit Court up to $200; up to $100 in Montreal and Quebec; Superior Court all above these sums.

Parties may appear in person or by attorney. Parties cannot avail themselves of their own testimony except in commercial matters. Relationship or interest does not render a witness incompetent; it merely affects his credibility.

Arrest and imprisonment for debt and damages is allowed, on certain conditions, where amount exceeds $40.

Simple attachment for debt is allowed, also attachment by garnishment, attachment in revendication and attachment for rent.

Judgments may generally be enforced by execution fifteen days after their date and eight days after they are rendered in summary matters, as bills, notes, accounts, etc.

Contracts.

An agreement is a mutual contract in consideration between two parties, and a contract is the completed agreement of two competent parties about a rightful and legal subject-matter, with a legal consideration and with mutual obligations. A simple contract is one not of specialty or record. It may be either oral or written, and the only difference is in the method of proof. It is usually called an agreement.

A special contract is one under seal, as a bond, conveyance, deed or mortgage. They are written, and signed, sealed, witnessed and delivered. In general, a scroll may be substituted for a seal.

Conditional contracts are those which are to have full effect only in case of the happening of certain events or the existence of a given state of things.

An executed contract is one which leaves nothing else to be done by either party. Thus if goods are delivered and the price paid the contract is executed.

A contract is express when its terms are either openly spoken or put in writing at the time of making.

An implied contract is one which the law presumes the parties to have made, though the terms be not openly expressed.

Essentials of a Legal Contract.—1. A consideration, which is legally the "cause" of the contract.

2. Object, subject-matter, or what the parties propose as its effects.

3. Parties, legal and proper, for a contract must have parties.

4. Assent; for the parties must be in agreement.

The legal obligation of a contract consists in the right of either party to have it enforced against the other, or to recover for its violation by legal process. The wording of a contract should be free from duplicity, indistinctness and uncertainty of meaning. Breach of contract may be of any of its terms, or of the entire contract. The consideration of a contract is the price, motive or matter of inducement to the contract. The consideration must always be sufficient in law, and may be money, labor, love, a barley-corn or other moving inducement. A consideration when not expressed may be inferred, as in a note or bill of exchange. Immoral contracts are void.

Any number of persons may become parties to a contract, but the law disqualifies infants, insane, habitual drunkards, and in some instances married women without the consent of their husbands. No form of writing enters more universally into modern business than the contract or agreement. Contracts are assignable.

SIMPLE FORM OF AGREEMENT, WITH DAMAGES FOR BREACH.

This agreement, made this —— day of ——, A. D, ——, by and between R. S., of the town of ——, in the county of —— (merchant), and B. O., of the town of ——, in the county of ——, (manufacturer), witnesseth:

That said party of the second part shall (*here insert the subject-matter or object of the agreement*).

That said party of the first part shall pay unto said party of the second part, for the same, the sum of —— dollars, as follows: —— dollars, on the —— day of ——, A. D. ——, and —— dollars, on the —— day of ——, A. D. ——, with the interest on the amount due, payable at the time of each payment.

And for the performance of this agreement, the said parties bind themselves, each to the other, in the sum of —— dollars, as liquidated damages, to be paid by the failing party.

In witness whereof, the said parties have hereunto set their hands the day and year first above written.

(*Signed*) B. O.
R. S.

[*Witnesses.*]

CONTRACT TO BUILD.

This agreement, etc., witnesseth:

That R. S., for the consideration hereinafter mentioned, shall, within the space of ——, next after the date hereof, in a good and workmanlike manner, and according to the best of his art and skill at ——, well and substantially build, finish, erect, and set up one dwelling house, according to the drawings, plans, and specifications hereunto annexed.

That the dimensions of said dwelling shall be as follows: (*giving them*).

That said dwelling shall be composed of material as follows: (*describing it minutely and at length*).

That all said materials shall be furnished by said ——; *or*,

That R. S. shall, at his own costs and expense, provide the following materials for the construction of said building: (*give items*).

That B. O. shall, at his own costs and expense, provide the following materials for the construction of said building: (*give items*).

That all further and other materials customary and necessary in the construction and completion thereof shall be furnished by and at the costs and expense of ——.

That B. O., in consideration of the premises, shall pay said R. S. the sum of —— dollars, as follows:

First payment. When, etc.
Second payment. When, etc.
Etc., etc.

Final payment of the remaining sum of —— dollars, in full for all said work, when said building is complete for occupancy.

In witness whereof the said parties have hereunto fixed their hands this —— day of ——, 190—.

(*Signed*) B. O.
R. S.

[*Witnesses.*]

Conveyances—Deeds, Mortgages, Leases, Wills, etc.

A conveyance is the transfer of the title of land from a person or persons, corporation or corporations, to another or others. A conveyance may be absolute or conditional. An absolute conveyance of realty is called a "deed;" a conditional conveyance of realty a "mortgage."

All conveyances made with the intent to defraud creditors are void.

A Deed.—A deed must be written on paper or parchment, must be between competent parties, made without restraint, contain the names of grantor and grantee and the requisite parts, be dated, signed, sealed, witnessed, acknowledged and delivered. The usual introduction to a deed is: This indenture (*or conveyance ordered*) made this —— day of ——. Then follows:

1. The *premises*, which embrace the parties, consideration, description of property conveyed, explanations and exceptions, if any. Growing crops pass with the realty unless excepted.
2. A wife must join her husband in a deed in order to dispose of her dower interest.
3. An *habendum*, or "to have and to hold" clause.
4. A *reddendum* clause, where anything is to be reserved to the grantor. The words are "Saving and excepting," etc.
5. A clause of *conditions*, where the deed contains restrictions.
6. The *covenant of warranty*, by which the grantor assures an estate that the grantee shall enjoy without interruption.
7. The *conclusion*, which mentions the execution, date, etc.
8. The *signature* of grantor or grantors, with their seals.
9. The *attestation* by competent witnesses when required.
10. The *acknowledgment* or official proof.

Some of the States have adopted very brief forms for deeds, and in others seals are not required to the signatures, and in others witnesses are not essential. But the requirement of record is universal.

DEED—SHORT FORM WITH GENERAL WARRANTY.

This deed (*conveyance or indenture*) made this —— day of ——, 190—, witnesseth:

That R. O. and W. O. his wife, of —— County, in the State of ——, conveys and warrants to H. A., of —— County, in the State of ——, for the sum of ——, all the following described real estate, situated in the county of ——, and State of ——, to wit: (*describing it by metes and bounds*).

Witness the grantors' hands, the day and year first above written.

R. O. [SEAL.]
W. O. [SEAL.]

For form of acknowledgment see *ante*.

DEED—LONG FORM WITH COVENANTS AND WARRANTY.

This indenture made this —— day of —— in the year of our Lord —— (*usually written in*), between H. B., of —— County, State of ——, and R. B., his wife, of the first part, and A. S. of the same place of the second part, witnesseth:

That the said party of the first part, for and in consideration of the sum of —— in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, and sold, and by these presents do grant, bargain, and sell, unto the said party of the second part, his heirs and assigns, all the following-described lot, piece, or parcel of land, situated in ——, in the county of ——, and State of ——, to wit:

[*Here describe the property.*]

Together with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues, and profits thereof; and all the estate, right, title, interest, claim, and demand whatsoever, of the said party of the first part, either in law or equity, of, in, and to the above bargained premises, with the hereditaments and appurtenances: To have and to hold the said premises above bargained and described, with the appurtenances, unto the said party of the second part, his heirs and assigns, forever. And the said H. B. and R. B., his wife, party of the first part, hereby expressly waive, release, and relinquish unto the said party of the second part, his heirs, executors, administrators, and assigns, all right, title, claim, interest, and benefit whatever, in and to the above-described premises, and each and every part thereof, which is given by or results from all laws of this State pertaining to the exemption of homesteads.

And the said H. B. and R. B., his wife, party of the first part, for themselves and their heirs, executors, and administrators, do covenant, grant, bargain, and agree, to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents they were well seized of the premises above conveyed, as of a good, sure, perfect, absolute, and indefeasible estate of inheritance in law, and in fee simple, and have good right, full power, and lawful authority to grant, bargain, sell, and convey the same, in manner and form aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, and encumbrances of what kind or nature soever; and the above-bargained premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against all and every person or persons lawfully claiming or to claim the whole or any part thereof, the said party of the first part shall and will warrant and forever defend.

In testimony whereof, the said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered } H. B. [SEAL.]
in the presence of } R. B. [SEAL.]

For acknowledgment see *ante.*

For widow's dower see *post.*

Leases.—A lease is a conditional conveyance in the form of a contract for the possession and profits of lands and tenements on the one side and a recompense of rent or other income on the other.

Its duration must be shorter than that of the interest of the lessor in the land. The party who leases is the "lessor," and he to whom the lease is made the "lessee."

Anything corporeal and incorporeal may be leased—lands, houses, live-stock, chattels, fisheries, etc. Lessors and lessees must be competent at law to contract. A lessor cannot pass by lease a greater interest than he has in the property. A lease may terminate by expiration of time, and by forfeiture through breach of conditions. Leases may be made either by parol or in writing, and no particular form of expression is required; but they should be particular as to date, names of parties, consideration and description of premises. Seals should be affixed to signatures when the law requires; they should be witnessed, and when they run for a term of years they should be acknowledged.

LEASE—GENERAL FORM.

It is agreed, the —— day of ——, between R. O., of ——, and N. P., of ——.

The said R. O. doth let unto the said N. P., and he takes, all (*describing premises*), for one year from ——, and for such longer time after the expiration of the said one year, as both the said parties shall agree, and until the end of three months after notice shall be given, by either of the said parties to the other of them, for leaving the said premises, at, etc., for the yearly rent of ——, to be paid quarterly on the —— days of ——, etc., by even and equal proportions, which said yearly rent the said N. P. does hereby, for himself, his executors and administrators, covenant and agree to pay to the said R. O. (*if freehold, say,* "and his heirs"), (*but if otherwise, say,* "executors, adiministrators and assigns"), accordingly, for so long time as he shall hold and enjoy the said premises as aforesaid, and until the end of the said three months, next after notice shall be given by either of the said parties, to the other of them, for leaving the said premises as aforesaid.

In witness whereof, etc.

Mortgages.—A mortgage is a conditional conveyance or deed. It first creates an absolute estate in the mortgagee, by a regular deed form, and then it provides for the voiding or defeat of such estate on the fulfillment of the conditions prescribed at the time the mortgage was given.

Both real and personal property may be mortgaged. Mortgages should always be recorded, that their place as liens may be secured in the official books. They may be assigned. Like deeds they must be in writing and treated, as to form, as deeds. When their conditions are fulfilled they must be satisfied, either by entry of satisfaction on the margin of the record or by a receipt upon the back of the mortgage. As with deeds, some of the Western States use very brief mortgage forms. Usually the mortgage form is that of a deed but with the following as the conditional feature:

The condition of this deed is such, that whereas the said A. B. is justly indebted to the said C. D. in the sum of —— dollars, as evidenced by his promissory note for said sum, of even date herewith, payable to the said grantee or order —— after date, with interest:

Now, therefore, if said note shall be well and truly paid, according to its tenor, then this deed shall be void; otherwise, to remain in full force and effect.

Signed, sealed, and delivered } [*Signature* (*and seal*).]
in presence of }

FORM OF CHATTEL MORTGAGE.

Know all men by these presents:

That I, O. R., hereby sell and assign to S. A. all the tools and materials now in my shop at ——.

This sale is intended as a security for the payment of —— dollars, with interest, on or before the expiration of —— from the date hereof; which payment, if duly made, will render this conveyance void.

Witness my hand, this —— day of ——.

[*Signature of witness.*] O. R.

Wills.—A will, or testament, is the disposition of one's property to take effect after death. As a conveyance of property it may be either absolute or conditional. The word "will" includes also its codicils, or additional clauses.

Kinds.—Wills are of two kinds, written and unwritten. An unwritten will is called nuncupative, because it is simply a solemnly spoken declaration. The practice of allowing an owner of property to direct its destination after death is as old as civilization. When real estate is given in a will it is called a "devise." When personal property is given it is called a "bequest." The words in a will clause conveying realty are, "I give, devise and bequeath." The words conveying personalty are, "I give and bequeath." The person to whom a devise is made is called the "devisee." A person to whom the rest, residue and remainder of a testator's property is given, after satisfying all debts, devises and bequests is called the "residuary devisee." When money is given to one in a will he is said to receive a "legacy," and he becomes a "legatee."

Testators.—The person who makes and leaves a will or testament at death is called a testator. Idiots, lunatics, infants and other incompetents cannot make valid wills. In the absence of a statute qualifying her, a married woman cannot, as a rule, make an independent will. Persons in duress or without free will cannot make valid testaments. In general a testator must be of full age, but this rule is much modified by statutes in the respective States. A testator must have "sound mind and memory," and it is customary to insert these words in the beginning of a will.

Codicil.—A codicil is an addition to, or modification of, a last will and testament. They are part of a will and to be construed as such. When devisees or legatees are regarded as incompetent to take absolutely under a will, as spendthrifts, drunkards, infants, etc., it is usual to will them their intended portions through the agency of a trustee. So trusts are often created for the purpose of keeping together large properties for stated times, or that certain purposes of testators may be the better effected. When a man dies without a will he is said to die intestate, and the law provides for the distribution of his property.

Nuncupative Will.—A nuncupative will, or one by solemn statement, is a verbal will made at a last moment by one who has not opportunity to commit his wishes to writing, as a dying soldier or shipwrecked sailor. The person to whom the dying communication is made becomes the witness to establish such a will. In general, nuncupative wills must be proved as soon after the death of the testator as possible; and, for the most part, they are not regarded as sufficient to vest a title to real estate in the devisee. The statutes of the respective States, which vary greatly, govern the nature, time and limitation of nuncupative bequests.

Requisites as to Form.—The rule is that a will must be in writing and duly signed and witnessed in accordance with the laws and usages of the testator's domicile. Some States require only one witness, others two or three. After the death of the testator his will should be submitted for probate within a reasonable time. A testator may alter or repeal his will by burning, cancelling, destroying or obliterating it himself or by some one in his presence, or by his express direction, or by a new will or codicil or other writing duly executed and proved. Wills giving bequests or devises to public institutions are, as a rule, required to be drawn and executed a certain length of time, as thirty days, before the death of the testator. When a will is written on separate sheets of paper, especially if detached, it is best that each sheet be signed and attested.

SHORT FORM OF WILL.

I, R. S., of ——, a ——, make this my last will:

I give, devise and bequeath all my estate, real and personal, as follows; that is to say:

[*Separate devises and bequests.*]

I appoint A. B., of ——, a ——, executor of this, my will.

In witness whereof I have signed, sealed, published and declared this instrument as my will, at ——, this —— day of ——, 190—.
R. S. [SEAL.]

Attested in presence of testator and
of each other, and at testator's request.
B. O.
N. B.

GENERAL FULL FORM OF WILL.

I, A. B., of ——, in the county of ——, and State of ——, declare this to be my last will and testament.

1. I give and bequeath to my wife, C. B., all the fixtures, prints, books, paintings, linen, china, household goods, furniture, chattels and effects (other than money or securities for money), which shall, at my death, be in or about my dwelling-house at ——.

2. I give and devise to my said wife, her heirs and assigns, all, etc. (*describing the estate devised*), together with all the appurtenances thereunto belonging; to have and to hold the same unto the said C. B., her heirs and assigns, forever.

3. I give and bequeath to my said wife the sum of —— dollars, to be paid to her within one month after my death, without interest.

4. I also give and bequeath to my said wife the sum of —— dollars.

5. I give and devise to my son, D. B., his heirs and assigns, all, etc. (*describing the estate devised*), together with all the hereditaments and appurtenances thereunto belonging, or in anywise appertaining; to have and to hold the premises above described to the said D. B., his heirs and assigns, forever.

6. I give and bequeath to my said son, D. B., the sum of —— dollars.

7. I also bequeath the following legacies to the several persons hereafter named: To my nephew, A. S., the sum of —— dollars; to my cousin, T. S., the sum of —— dollars; to my friend, N. S., the sum of —— dollars.

8. I also bequeath to the following of my domestic servants who shall be living with me at the time of my death,

as (*etc., describing their capacity and the legacies to be given*).

9. All the rest, residue and remainder of my real and personal estate I give, devise and bequeath to R. S., his heirs and assigns, forever.

10. I appoint E. X. and T. R. executors of this my will.

In witness whereof, I, A. B., have hereunto subscribed my name this —— day of — —. A. B.

Subscribed by the testator in the presence of each of us (*or* acknowledged by the testator to each of us to have been subscribed by him) and at the same time declared by him to us to be his last will and testament.

Witness our hands this —— day of ——, A. D. ——.

W. I.
T. N.
E. S.

FORM OF CODICIL TO A WILL.

Whereas I, A. B., of ——, have made, published, and declared my last will and testament, in writing, dated, etc.

Now I, the said A. B., do by this present codicil, to my last will and testament annexed, confirm and ratify my said last will and testament, and every clause, bequest, and devise therein contained, etc.

Courtesy and Dower.

Courtesy is the estate to which the husband is entitled upon the death of his wife, in the lands and tenements of which she was seized in fee simple or entail during their marriage, provided they have had lawful issue born alive and possibly capable of inheriting her estate. It is a freehold estate for the term of his natural life.

Dower is the right at law a wife acquires by marriage in her husband's real estate. It is a freehold estate for the term of her natural life, and is usually rated at one-third of the husband's realty. It is sometimes necessary in the settlement of estates to ascertain its present worth in order to pay it off and remove it. This can be done by means of the following tables, generally used for such purpose.

EXPECTATION TABLE.

This table shows the life expectancy of the widow from sixteen to ninety-five years of age. That is, if she be twenty-five now, she may expect to live 32.33 years longer:

Present Age.	Expectant Years.	Present Age.	Expectant Years.	Present Age.	Expectant Years.	Present Age.	Expectant Years.	Present Age.	Expectant Years.
16	35.76	32	29.43	48	22.27	64	13.05	80	5.85
17	35.37	33	29.02	49	21.72	65	12.43	81	5.50
18	34.98	34	28.62	50	21.17	66	11.96	82	5.16
19	34.59	35	28.22	51	20.61	67	11.48	83	4.87
20	34.22	36	27.78	52	20.05	68	11.01	84	4.66
21	33.84	37	27.34	53	19.49	69	10.50	85	4.57
22	33.46	38	26.91	54	18.92	70	10.06	86	4.21
23	33.08	39	26.47	55	18.35	71	9.60	87	3.90
24	32.70	40	26.04	56	17.78	72	9.14	88	3.67
25	32.33	41	25.61	57	17.20	73	8.69	89	3.56
26	31.93	42	25.19	58	16.63	74	8.25	90	3.73
27	31.50	43	24.77	59	16.04	75	7.83	91	3.32
28	31.08	44	24.35	60	15.45	76	7.40	92	3 12
29	30.66	45	23.92	61	14.86	77	6.99	93	2.40
30	30.25	46	23.37	62	14.26	78	6.59	94	1.98
31	29.83	47	22.83	63	13.66	79	6.21	95	1.62

ANNUITY VALUE OF ONE DOLLAR.

This table gives the annuity value or present worth of one dollar at five per cent per annum from one up to thirty-five years. If a widow be fifty years of age, you find her expectancy in the above table to be 21.17 years. Now suppose her dower interest in her husband's estate be $200 per year. You find its present value by multiplying $200 by $12.8211, the amount found in the table below for one dollar for 21.17 (twenty-one) years. Result, $2,564.22.

1 year ..	$0 9523	13 years.	$9.3935	25 years.	$14.0939
2 years..	1.8594	14 years.	9.8986	26 years.	14.3751
3 years..	2.7232	15 years.	10.3796	27 years.	14.6430
4 years..	3.5459	16 years.	10.8377	28 years.	14.8981
5 years..	4.3294	17 years.	11.2740	29 years.	15.1401
6 years..	5.0756	18 years.	11.6895	30 years.	15.3724
7 years..	5.7863	19 years.	12.0853	31 years.	15.5928
8 years..	6.4632	20 years.	12.4622	32 years.	15.8026
9 years..	7.1078	21 years.	12.8211	33 years.	16.0025
10 years..	7.7217	22 years.	13.1630	34 years.	16.1929
11 years..	8.3064	23 years.	13.4880	35 years.	16.3741
12 years..	8.8632	24 years.	13.7986		

Copyright and How to Secure it.

Who May Obtain.—The author, inventor, designer or proprietor of any book, map, chart, dramatic or musical composition, engraving, cut, print, or photograph or negative thereof, or of a painting, drawing, chromo, statuary, and of models or designs intended to be perfected as works of the fine arts, and the executors, administrators, or assigns of any such person shall, on complying with the provisions of this chapter (Revised Statutes of United States as amended by act of March 3, 1891), have the sole liberty of printing, reprinting, publishing, completing, copying, executing, finishing and vending the same; and, in case of a dramatic composition, of publicly performing or representing it, or causing it to be performed or represented by others. And authors or their assigns shall have exclusive right to dramatize or translate any of their works for which copyright shall have been obtained under the laws of the United States.

Sending of Title.—The author, inventor or designer of any such book, map, chart, composition, engraving, cut, print, photograph, chromo, or description of painting, drawing, statue, statuary, model or design for a work of fine art, must deliver to the Librarian of Congress, or deposit in the mail, within the United States, prepaid and addressed to the "Librarian of Congress, Washington, D. C.," a printed copy of the title of the same; and this must be done before the date of publication of the same.

Requisite of Title.—Such "printed title" as the law requires may consist of a printed copy of the title page of such publications as have a title page. In all other cases the title must be printed expressly for copyright entries, with name of claimant of copyright. Typewritten print will be accepted in lieu of regular press print, but a separate title is required for each entry.

Periodicals.—Current publications, as newspapers, magazines, etc., may be copyrighted, but in such case the title must include the date of publication and the number of the same, and each number of such publication requires a separate copyright entry.

Forms.—Blank forms of entry for copyright are furnished on application to the Librarian of Congress. The same is true of all other forms connected with copyright.

Deposit of Publications.—To perfect the copyright, two complete copies of the best edition of each book or other article, must be deposited with, or addressed to, the Librarian of Congress, on a day not later than the date of publication of the same. Freight or postage must be prepaid; or, the Librarian will, on application, furnish printed penalty labels for parcels by mail only, in which case they will go free.

Limitations and Penalties.—In order to be copyrightable books must be printed from type set or plates made in the United States. So of the negatives and stones of photographs, chromos, lithographs, etc. Models or designs of works of art may be sent in place of the two printed copies. Without the deposit of the copies required the copyright is void, and a penalty of $25 is incurred. If a work is revised materially, a copy of the revised edition must be deposited with the Librarian of Congress.

Notice of Copyright.—No copyright is valid unless notice of it is inserted in every copy published, on the title page, or next to it. Such notice may read, in brief, "Copyright, 19—, by ——." Similar notice must be inscribed or cut on all other copyrightable articles. There is $100 penalty for inscribing such notice on a book or article for which no copyright has been obtained.

Duration of Copyright.—A copyright runs for twenty-eight years, and, at the end of that time, it may be renewed for fourteen years more, provided application for renewal be made within six months before the end of the time of expiration. Blanks and instructions for renewals will be furnished on application.

Assignment.—Copyrights are assignable in the usual written form. Every assignment must be recorded in the office of the Librarian of Congress within sixty days of its execution.

Fees.—For recording copyright, fifty cents; for copy of record or certificate of copyright, fifty cents. This renders an enclosure of $1 in all necessary if a certificate is desired. In case of foreign persons, the above fees become $1 and fifty cents respectively. Fees must be paid by express orders, money orders, or currency. Postage stamps are not received. Duplicates of copyright are furnished for fifty cents.

Laws Exempting Property from Levy and Sale in all the States and Territories.

An exemption law is one which fixes the right and establishes the amount and kind of property a debtor may claim as exempt from attachment, distress, execution or any other process at the suit of a creditor.

Property thus exempted is placed beyond reach of the law and in the absolute control of the owner. A judgment creates no lien against it, and execution creates no power over it. The law takes cognizance of it only for the purpose of protecting the owner in its enjoyment.

Property exempt at the time of the death of a debtor remains exempt for the benefit of his widow and children.

Alabama.—House and lot in city, town, etc., or in country, 160 acres not exceeding in value $2,000; also personalty, $1,000; wages, $25 per month.

Alaska.—No homestead, but specified articles in value from $750 to $1,000; also earnings for thirty days next preceding judgment.

Arizona.—Homestead not exceeding $2,500 in value; household furniture, etc., $500; no exemption to persons without family or dependents; earnings, thirty days preceding levy.

Arkansas.—Personalty—unmarried man, $200; married, $500; homestead—not exceeding $2,500. In cities and towns, one acre; in country, 160 acres; but if homestead be no more than eighty acres in country, or one-quarter acre in town, its value is unlimited; wages for sixty days are exempt.

California.—A homestead of $5,000, if declaration of homestead is properly filed; also a large number of specified articles of personalty; personal property with homestead not to exceed $1,000.

Colorado.—Homestead not to exceed $2,000; claims must be recorded; large number of specified articles of personalty in favor of heads of families; library and implements of professional men exempt; wages not to exceed $60.

Connecticut.—Homestead, $1,000; claim must be recorded; necessary household furniture; implements of debtor's trade; library; live-stock; wages, $50.

Delaware.—No homestead; besides specified articles $75 to $200 additional in Newcastle County; $50 to $150 in Kent; no additional in Sussex.

District of Columbia.—Furniture, $300; tools, $200; stock, $200; professional library, $300; earnings not above $100 per month to married persons; wages for two months not to exceed $200; salary of government employes.

Florida.—Homestead, $160 acres of land; one-half acre in city; $1,000 personalty to "heads of families"; all wages.

Georgia.—*Constitutional,* real and personal property to value of $1,600; *statutory,* certain specified articles, and land not above $500 in value if in town or city, or five acres and five additional for every child under sixteen years of age if in the country. Both kinds of exemption cannot be claimed. Exemption may be waived in writing excepting as to apparel, etc.

Idaho.—Homestead, $5,000; furniture, etc., farming utensils, tools of trade, mining implements, professional library, instruments, wardrobe, cartman's team, etc.; wages for thirty days.

Illinois.—$1,000 homestead, and $400 personalty, to head of family; to others, $100 only; all wages above $8 per week liable to garnishment.

Indiana.—$600 to householder. No property can be sold for less than two-thirds its appraised value, unless debtor waive the relief; no exemption of labor, purchase-money or taxes.

Iowa.—Homestead, in town, half acre; country, forty acres; also certain articles of personalty, and household and kitchen furniture, not to exceed $200; wearing apparel; wages for ninety days.

Kansas.—In country, 160 acres; one acre in city. Stock in trade, $500; furniture, farming tools, live-stock, professional library, etc.; wages for three months under certain conditions.

Kentucky.—Land and dwelling house not exceeding $1,000, specified articles of personal property of limited value, professional library to the value of $500; wages, $50.

Louisiana.—One hundred and sixty acres of land not exceeding $2,000 in value. Claim must be registered. Certain enumerated articles of personalty; all wages of laborers.

Maine.—Homestead, if duly claimed, $500. A large number of enumerated articles of personalty; limited wages.

Maryland.—One hundred dollars of property, except for breach of promise or seduction.

Massachusetts.—Homestead valued at $800, if properly recorded as homestead property; also certain articles of personalty; wages, $20, under conditions.

Michigan.—$1,500 homestead; furniture, $250; stock, $250; books, $150; live-stock; wages, $25.

Minnesota.—Eighty acres homestead, or lot and house in platted city or village of over 5,000 population, or one-half acre if population is less than 5,000; sundry articles of personalty; life insurance to survivors, $10,000; wages, $25.

Mississippi.—Homestead not over 160 acres, or $2,000 in value. May be increased to $3,000 by proper proceedings; wages to head of family, $100 per month; other persons, $20; sundry other articles of personalty.

Missouri.—Homestead, $1,500, and $300 personalty to heads of families. In cities of 40,000 inhabitants, homestead may be $3,000 in value; wages for thirty days.

Montana.—Homestead, country, used for agricultural purposes, 160 acres, with buildings, etc.; in town, one-fourth acre; value, $2,500, and the usual amount of personalty exempt in such cases; wages for thirty days.

Nebraska.—Homestead, $2,000, or in lieu thereof $500 as personalty; also specified articles of personalty to heads of families; wages for sixty days.

Nevada.—Books, etc., $100; furniture, live-stock, seeds, etc., $400; tools and professional instruments; miner's cabin and tools, $500 each; wages, $50; homestead, $5,000 to heads of families.

New Hampshire.—Homestead, $500; furniture, tools, certain live-stock; wages, $20, not good as against necessaries.

New Jersey.—Homestead, $1,000, if advertised and recorded, $200 selected by the debtor from the goods levied on and appraised, and all wearing apparel of head of a family.

New Mexico.—Homestead, $1,000; specified articles and $500 when not owning a homestead; wages for three months under certain circumstances.

New York.—Certain specified articles, and $250 worth in addition, except for purchase price; also

$1,000 homestead, when recorded as such and occupied by debtor; wages for sixty days.

North Carolina.—One thousand dollars real estate and $500 of personal property; wages for sixty days under certain conditions.

North Dakota.—Homestead to the value of $5,000. If a town plot, not over two acres; if country, 160 acres; also personalty $1,500; partnership firms, $1,500.

Ohio.—Certain specific articles of household furniture, etc. Homestead, $1,000, or to head of family in lieu of homestead, $500 personalty; wages under certain conditions.

Oklahoma.—To head of family 160 acres, outside of city; inside of city one acre; furniture, livestock; ninety days' wages; to single person only apparel, books, wages, etc.

Oregon.—Household furniture, etc., $300. Tools, etc., $400; other personalty, about $225; family homestead, $1,500; wages for thirty days under certain conditions.

Pennsylvania.—Personal or real estate to the amount of $300. It may be waived in writing; all wages.

Rhode Island.—Household furniture and family stores not exceeding $300; wearing apparel and tools to value of $200; debts secured by note; limited wages under certain conditions.

South Carolina.—A homestead exemption of one thousand, and $500 in personalty are allowed; wages for sixty days, if family depends on them (to married or single men).

South Dakota.—Homestead, 160 acres in country, or one acre in town or city, to the value of $5,000; also exempt $750 personalty on all debts created since March 7, 1890, to heads of families, and $300 to single persons, not heads of families; otherwise $1,500 to all persons; all life insurance money received by widow or children; no exemption against purchase price; wages for sixty days if necessary to support of family.

Tennessee.—Homestead, $1,000; a large number of specified articles of personal property; wages, $30, for laborers and mechanics.

Texas.—Specified articles of personalty; homestead in country 200 acres, in city, land $5,000 in value at time of designation, without reference to value of improvements; all wages.

Utah.—Homestead of value equal to $1,500 for judgment debtor, $500 for wife, and $250 for each child; also books, $200; furniture, $300; utensils, $300; tools, $500; earnings within sixty days; insurance.

Vermont.—Homestead, $500; specified articles of personalty.

Virginia.—Two thousand dollar homestead, except when waived. Specified articles of personal property which could seldom exceed $500 in value.

Washington.—Homestead, $2,000, homestead declaration being necessary; to householder, $1,000, in addition of personal property; specified articles; current wages to amount of $100, if family is dependent thereon.

West Virginia.—To head of family, $200 personalty; $1,000 homestead, if recorded as such.

Wisconsin.—Homestead, in country, forty acres; in city or village, one-quarter of acre; furniture, $200; also certain specified articles; wages for three months, not exceeding $60 a month.

Wyoming.—Homestead, $1,500. Tools, library, etc., $300. Household property, $500. Wearing apparel, $150, etc., etc.; wages not exceeding $150.

Insurance.

Insurance is a contract, for an agreed premium, by which one party, called the insurer or underwriter, undertakes to indemnify another, called the insured, against loss on a specified subject by specified perils. The agreed consideration is called the "premium."

Kinds of Insurance.—Among the various kinds of insurance is that against accidents, as in travel, etc.; insurance against fire on land to buildings and all species of personalty; insurance on lives of persons or animals; insurance against losses by carriage of freight on sea or land, the former being called marine insurance.

Companies.—Insurance is generally effected through companies, which issue, on the payment of the stipulated premium, a policy or contract of insurance to the insured. Such companies are generally incorporated, and may be either stock companies, mutual companies, or a mixture of both. In a stock company the members or stockholders pay in a certain capital, which is liable for the company's contracts. In a mutual company the members are themselves the parties insured and contribute to the fund which is to bear the loss what is required to support it. In mixed companies, some may be insured and some not, the former contributing as in mutual companies, the latter as in stock companies.

Whatever the kind of company, it generally acts through agencies. Notice to such agent is notice to the company.

Application.—The preliminary statement made by an applicant for insurance of any kind generally consists of written answers to printed or oral questions proposed by the company applied to respecting the subject under consideration. The application paper thus filled out becomes part of the basis of the contract and is referred to as such in the policy. Misrepresentation of facts in the application will defeat the policy.

The Policy.—The policy of insurance is the instrument of contract by which insurance is made by the insurer or underwriter in favor of the person insured and against some specified risk, peril or contingency. An interest policy is one where the party insured has a real and assignable interest in the thing insured. An open policy is one in which the value is to be proved by the party insured. A valued policy is one where a value has been set on the thing insured, and such value inserted in the policy in the nature of ascertained damages. Every policy, no matter what the kind of insurance, specifies or understands parties, the subject or interest insured, the amount, the premium, the risk or peril and period of risk. A date is necessary to its validity. Policies of insurance are liberally construed by the courts. It is not the intent that insurance shall be taken advantage of in a speculative way; so, companies reserve the right, or are given it by law, to replace a burned building at their own cost, if such can be done for a sum less than the amount of insurance they would otherwise have had to pay.

Partial losses by fire or otherwise are adjusted by skilled persons known as adjusters. Adjusting losses has come to be a distinct business. It is necessary that the insured should have a legal and recognizable interest in the property insured, which may in case of necessity be capable of valuation.

Interest.

Interest is the compensation paid by a borrower of money to a lender for its use, or by a debtor to his creditor for an overdue debt. Agents and officials, such as trustees, executors, administrators, guardians, etc., are chargeable with interest if they have for an unreasonable time kept moneys idly in their possession, which might have been turned to profitable account.

Rate and Computation.—When a rate of interest is expressed or implied in a contract, it continues until full payment of the principal is paid. When no rate of payment is mentioned in a contract, the legal rate for the State is implied and may be collected. Each State fixes its own legal or standard rate, to exceed which is usurious, unless otherwise provided by statute. Parties may fix any rate of interest below that fixed as legal by statute. Sums of money which have to be sued for, and the amounts ascertained by the courts, draw interest, as a rule, from the time of the service of the writ on the debtor or defendant. If a party have accepted the principle of a debt, it is generally held that he cannot afterwards collect the interest. A legal tender of money and refusal to accept it stops the running of interest.

Partial Payments.—In computing interest on notes, bills, bonds, etc., upon which part or parts of the principal has been paid, every payment is to be first applied to keep down the interest; but the interest is never allowed to form a part of the principal, so as to become interest bearing. When the partial payment exceeds the amount of interest due when it is made it is proper to compute the interest to the time of the first payment, compute interest on the remainder to the time of the second payment, add it to the remainder, and subtract the second payment; and so from payment to payment.

Compound Interest.—Interest upon interest, or compound interest is not allowed except in special cases; but if compound interest has accrued, even under a former bargain for it, and has been paid, it cannot be recovered back. Usury is the taking of more interest than the law allows.

HANDY INTEREST TABLE.

At 4 per cent, multiply principal by number of days and divide by 90.

At 5 per cent, multiply as above and divide by 72.

At 6 per cent, multiply as above and divide by 60.

At 7 per cent, multiply as above and divide by 52.

At 8 per cent, multiply as above and divide by 45.

At 9 per cent, multiply as above and divide by 40.

At 10 per cent, multiply as above and divide by 36.

At 12 per cent, multiply as above and divide by 30.

INTEREST IN THE UNITED STATES, TERRITORIES, Etc.

States and Territories.	Penalties for Usurious Contracts.	Legal.	Agreed.
Alabama	Loss of interest, and in some cases, costs	8 per cent.	8 per cent.
Alaska	Forfeiture of debt to school fund	8 per cent.	10 per cent.
Arizona	No penalty	7 per cent.	No limit.
Arkansas	Contract voided	6 per cent.	10 per cent.
California	No penalty	7 per cent.	No limit.
Colorado	No penalty	8 per cent.	No limit.
Connecticut	No recovery beyond legal rate	6 per cent.	No limit.
Delaware	Forfeiture of principal, or equivalent	6 per cent.	6 per cent.
District of Columbia	Forfeiture of all interest if sued for in one year	6 per cent.	10 per cent.
Florida	Forfeiture of all the interest	8 per cent.	10 per cent.
Georgia	Forfeiture of excess	7 per cent.	8 per cent.
Idaho	Forfeiture of 10 per cent of principal	7 per cent.	12 per cent.
Illinois	Forfeiture of entire interest	5 per cent.	7 per cent.
Indiana	Forfeiture of all over 6 per cent	6 per cent.	8 per cent.
Indian Territory	Forfeiture of principal and interest	6 per cent.	10 per cent.
Iowa	Forfeiture of interest and costs of suit and 8 cents per $100	6 per cent.	8 per cent.
Kansas	Forfeiture of double the sum in excess of 10 per cent	6 per cent	10 per cent.
Kentucky	Forfeiture of excess interest	6 per cent.	6 per cent.
Louisiana	Forfeiture of interest	5 per cent.	8 per cent.
Maine	No penalty	6 per cent.	15 per cent.
Maryland	Forfeiture of excess interest	6 per cent.	6 per cent.
Massachusetts	No penalty	6 per cent.	No limit.
Michigan	Forfeiture of entire interest	6 per cent.	8 per cent.
Minnesota	Forfeiture of debt and interest	6 per cent.	10 per cent.
Mississippi	Forfeiture of all interest	6 per cent.	10 per cent.
Missouri	Forfeiture of usurious interest by applying it to payment of principal	6 per cent.	8 per cent.
Montana	No penalty	8 per cent.	No limit.
Nebraska	Forfeiture of all interest	7 per cent.	10 per cent.
Nevada	No penalty	7 per cent.	No limit.
New Hampshire	Forfeiture of three times amount of illegal interest	6 per cent.	6 per cent.
New Jersey	Forfeiture of interest and costs	6 per cent.	6 per cent.
New Mexico	Forfeiture of amount of excess interest	6 per cent.	12 per cent.
New York	Forfeiture of debt and interest	6 per cent.	6 per cent.
North Carolina	Forfeiture of all interest	6 per cent.	6 per cent.
North Dakota	Forfeiture of interest	7 per cent.	12 per cent.
Ohio	Forfeiture of excess over 6 per cent	6 per cent.	8 per cent.
Oklahoma Territory	Forfeiture of all interest	7 per cent.	12 per cent.
Oregon	Forfeiture of principal and interest to school fund	6 per cent.	10 per cent.
Pennsylvania	Forfeiture of excess interest	6 per cent.	6 per cent.
Rhode Island	Any rate fixed by parties is legal	6 per cent.	No limit.
South Carolina	Forfeiture of double the sum received, to be collected by a separate action or allowed as a counter claim	7 per cent.	8 per cent.
South Dakota	Forfeiture of interest	7 per cent.	12 per cent.
Tennessee	Forfeiture of excess interest	6 per cent.	6 per cent.
Texas	Forfeiture of all interest	6 per cent.	10 per cent.
Utah	No penalty	8 per cent.	No limit.
Vermont	Excess may be recovered back	6 per cent.	6 per cent.
Virginia	Forfeiture of all interest	6 per cent.	6 per cent.
Washington	Forfeiture of twice the amount of accrued interest and costs	6 per cent.	12 per cent
West Virginia	Forfeiture of excess interest	6 per cent.	6 per cent.
Wisconsin	Forfeiture of all interest; also right of recovery of treble amount of usurious interest which may have been paid	6 per cent.	10 per cent.
Wyoming	Forfeiture of all interest	8 per cent.	12 per cent.

INTEREST IN THE BRITISH AMERICAN PROVINCES.

Provinces, Etc.	Penalty for Usury.	Legal.	Agreed.
Ontario	No penalty	6 per cent.	No limit.
Quebec	No penalty	6 per cent.	No limit.
New Brunswick	No penalty	6 per cent.	No limit.
Nova Scotia	No penalty	6 per cent.	No limit.
Prince Edward Isle	No penalty	6 per cent.	No limit.
Manitoba	No penalty	6 per cent.	No limit.
British Columbia	No penalty	6 per cent.	No limit.

Laws for Distributing Intestates' Estates and for Ascertaining Widows' Dower and Husbands' Courtesy in the United States and Canada.

Intestacy.—When a person dies without a will, he or she is said to die intestate. Therefore, it becomes necessary for the State to provide laws for the descent and distribution of such intestate's property, real and personal—to whom it shall go, in what proportions, etc. Such laws are called intestate laws or laws of descent and inheritance, and are important to nearly every person.

Dower.—Is that estate which a widow has for her life in some portion of the lands and tenements of which her husband was seized at any time during their married life, and which her issue might have inherited if she had any, and which is to take effect in possession from the death of her husband. Dower is generally regulated by statutes.

Courtesy.—Is that estate which a husband is entitled to upon the death of his wife, in the lands or tenements of which she was seized during their married life, provided they have lawful issue born alive, and possibly capable of inheriting. Courtesy is generally regulated by statute.

Alabama.—Where husband leaves no lineal descendants, and his estate is not insolvent, widow is endowed of half his lands; when estate is insolvent, of one-third; when there are lineal descendants, of one-third, whether estate is insolvent or not. Realty descends, subject to dower and debts: 1. To children and descendants, the latter taking ancestor's share. 2. Father and mother in equal parts. 3. When only one parent, one-half to brothers or sisters or descendants. 4. If but one surviving parent and no brothers or sisters, or descendants of brothers or sisters, all goes to surviving parent. 5. If no children, nor parents, to brothers and sisters, and descendants of such as are dead, in equal parts. 6. If none to take under division 5, then all to husband or wife. 7. If none to take under 5 or 6, then to next of kin of equal degree, in equal parts. 8. Then escheat to State.

Personalty distributed same as realty, except that, if no children, widow entitled to all of personal estate; if but one child, to one-half; if more than one and not more than four, to a child's part; if more than four, to one-fifth. If intestate leave a husband, he is entitled to one-half of personalty and use of realty during life.

Arizona.—No statutory dower. If intestate leave no husband or wife—1. To children and their descendants. 2. If no children nor descendants, to father and mother equally. 3. If either father or mother be dead, half to survivor, other half to brothers and sisters of deceased and to their descendants. 4. If no such brothers, sisters nor descendants, all to surviving father or mother. 5. If neither father nor mother, whole to brothers and sisters of intestate and their descendants. 6. If no kindred, half to maternal, other half to paternal kindred; and if only one of these be living, one-half to survivor, other half to descendants of deceased grandparent. 7. If no surviving grandparent, whole to their descendants.

If intestate leave husband or wife—1. Third of personalty to survivor, remainder to children or their descendants; the surviving husband or wife being entitled for life to one-third of intestate's land, with remainder to child, or children, or their descendants. 2. If no child, children, nor their descendants, surviving husband or wife entitled to all personalty, and half of lands without remainder to any person, other half to be inherited according to rules of descent and distribution. But if deceased have neither father nor mother, then surviving husband or wife takes whole estate.

Arkansas.—Dower is one-third of lands, and absolutely one-third of personalty, unless latter be not over $300, when she takes all. If no children, dower is one-half of real and personal property. Intestate's estates descend, subject to debts and dower—1. To children and their descendants in equal parts. 2. If no children, to father, then to mother, then to brothers or sisters and their descendants in equal parts; then to grandfather, grandmother, uncles and aunts and their descendants in equal parts; and so, without end, passing equally to nearest lineal ancestor, and their children and descendants. If no paternal or maternal kindred, whole to wife or husband, and if none, to State. When no descendants, and estate came by father, it descends to father and his heirs; if by mother, to her and her heirs. In cases not provided for, descent is by common law. Husband entitled to courtesy where children have been born alive.

California.—No dower right in the State. Intestate's property descends to heirs subject to control of probate court, and is distributed as follows: If survivor be husband or wife and only one child or issue of one child, in equal shares to surviving husband or wife and child, or issue of such child. If more than one child, one-third to surviving husband or wife, balance equally to children and to lawful issue of any deceased child. If no child living, remainder to all lineal descendants equally, if of same degree of kindred; if not, then by right of representation. If no surviving husband or wife, to children and their issue, by right of representation, share and share alike. If no issue, one-half to surviving husband or wife, other half to father and mother in equal shares, or to survivor, if one be dead. If no father or mother, one-half in equal shares to brothers and sisters, or to their issue, by right of representation. If no issue, or husband or wife, to father and mother, or survivor, or, if both be dead, in equal shares to brothers and sisters, and to children of deceased brothers and sisters, by right of representation. If decedent leave husband or wife, but no issue and no father, mother, sister or brother, whole estate to surviving husband or wife. If neither issue, husband, wife, father, mother, sister or brother, to next of kin in equal shares, those claiming through nearest ancestor preferred.

Colorado.—Dower and courtesy abolished. 1.

Estate of intestate descends to surviving wife or husband, if no children; but, if children, or descendants of such, one-half to surviving husband or wife, other half equally to the children or their descendants, subject to debts of deceased. To surviving children or descendants of such. 3. If no children nor their descendants, to the father; if no father, to the mother; if neither father nor mother, to brothers and sisters and their descendants, in equal parts, descendants representing share of their ancestor. 4. If no relatives above enumerated, to grandfather, grandmother, uncles, aunts and their descendants, in equal parts, descendants representing collectively share of ancestor. 5. If none of above be living, to nearest lineal ancestors and their descendants. Posthumous children inherit. Children of half-blood inherit as of whole-blood, but collateral heirs of half-blood inherit only half. There is a special widow's allowance of certain articles, and she may elect to take value of same in money.

Connecticut.—Surviving husband or wife entitled to use for life of one-third of all property owned by deceased, after payment of debts, and such third may be set apart out of personalty or realty, or both. The right cannot be defeated by will. If no will, survivor takes such third absolutely; and if no children, takes all of estate absolutely up to $2,000, and one-half absolutely of remainder. Survivor may elect to take by will or statute. Above applies since April 20, 1877. Since April 20, 1877, after interest of husband or wife has been set out, residue of personalty and realty equally to children and their legal representatives. Marriage legitimates children born before wedlock. If no children or any legal representative of them, residue of estate to brothers and sisters of intestate, of whole-blood, and their representatives. If no such, to parent or parents. If no parents, equally to brothers and sisters and their representatives, of the half-blood. If no parents and no brothers or sisters, nor any to represent them, equally to next of kin of like degree, whole-blood being preferred to half-blood, and no representatives admitted among collaterals after brothers and sisters and their representatives. Realty of decedent which came by descent, gift or devise of kinsman, goes equally to brothers and sisters of intestate, and their representatives of the blood of the ancestor from whom estate descended. If none such, then to be divided as other real estate.

Delaware.—Widow has use for life of one-third of realty. If no children, the use of one-half. She takes absolutely all personalty, after payment of debts, if no children nor kin. If there be issue, she takes one-third of residue of personalty, and one-half if there be no such issue, but brothers, sisters or next of kin. She may take her dower in realty by notes and bonds or in money. Surviving husband, if no issue, takes one-half of deceased wife's realty during life, after debts are paid. If issue, whether living or dead, he takes all of her realty during life. If no surviving children, he takes all of her personalty after payment of debts; if children survive, the residue of such personalty is divided equally between surviving husband and children. Descent is according to the common law, with some slight statutory modifications.

District of Columbia.—Dower is one-third life interest in rents and profits of realty. Since 1896, widow is entitled to dower in equitable as well as legal estate of deceased husband. Intestate's realty descends equally to child or children and their descendants. If no child nor descendant, to father, if land came on his part. If no father, to brothers and sisters of intestate of the blood of the father, and to their descendants equally. If no brothers or sisters, or descendants of such, to grandfather on part of the father, and to his descendants. If estate came by the mother, it follows the mother's line. If decedent's estate was acquired by purchase, then it descends, first to children; next to brothers and sisters of whole-blood and their descendants equally; next to brothers and sisters of half-blood and their descendants equally; next to father; next to mother, then to grandfather and his descendants, then to grandmother and her descendants. If no descendants or kindred, to husband or wife, or his or her kindred. Estates of courtesy exist as at common law. Personalty, after payment of debts, goes wholly to widow, if there be no child, parent, grandparent, brother or sister. If child, or children, or descendants thereof, widow takes one-third; if no child, or children, or descendants thereof, she takes one-half. Balance divided equally among children and descendants. If none, to father, next to mother, next to brothers and sisters. No distinction between whole and half-blood in distribution of personalty.

Florida.—Widow entitled to life-estate in one-third of deceased husband's realty, and to one-third of personalty absolutely. Dower is a preferred claim. She may elect to take, in lieu of dower, a child's part, if done within a year after probate of will or letters taken out. A child's part becomes a fee simple, but subject to husband's debts. Realty descends in parcenary to male and female kindred—1. To children and their descendants. 2. If none, then to father. 3. If no father, to mother, brothers and sisters and their descendants. 4. If none, inheritance divided into moieties, one going to paternal, the other to maternal kindred, as follows: to grandfather; if none, to grandmother, uncles and aunts, on same side, and to their descendants; if none, to the great-grandfathers, or great-grandfather, if but one; if none, to great-grandmothers, or great-grandmother, if but one; and the brothers and sisters of the great-grandfathers and great-grandmothers and their descendants. And so without end, passing to nearest male ancestors, and for want of them to lineal female ancestors of like degree, and to their descendants. Personalty is distributed according to the laws regulating descents.

Georgia.—Dower is one-third estate for life in deceased husband's realty, the dwelling-house not to be valued, unless in a city. Widow cannot waive dower by mortgage or lien. It is superior to judgments or other liens. She may elect to take a child's inheritance in lieu of dower. She is entitled to possession of dwelling and furniture till her dower and furniture are set apart. No tenancy by courtesy. Descent is as follows: 1. Husband is sole heir of wife, unless she leaves children or descendants of such, then he and the children take share and share alike, descendants of children taking *per stirpes.* 2. Wife is sole heir of husband leaving no children or their descendants. 3. If there are children or their descendants, wife takes a child's part, unless the shares exceed five, when she takes a fifth part. If wife elects to take dower, she has no further interest in realty. 4. Children stand in first degree from intestate, and inherit equally. Lineal descendants of children stand in place of parents, and take *per stirpes.* 5. Brothers and sisters of intestate stand in second degree, and inherit, if there is no widow nor surviving husband, nor child nor descendant. Half-blood on paternal side inherits equally with whole-blood. If no whole or half-blood on paternal side, half-blood on maternal side inherits. Children or grandchildren of deceased brothers and sisters stand in place of their parents, and there is no representation further than this among collaterals. 6. Father inherits equally with brothers and sisters. If no father, but a mother, who is a widow, she inherits as the father would. If mother is not a widow, she takes nothing, but takes as widow if estate be that of her only or last surviving child. Paternal and maternal next of kin, in all degrees beyond those above mentioned, stand on equal footing. 7. The next degree embraces cousins, uncles and aunts, who inherit equally. 8. More remote degrees inherit by rules of canon law. Personalty is distributed under laws governing descent of realty.

Idaho.—Dower does not exist. 1. Surviving husband or wife, and only one child, share intestate's estate equally; if more than one child, then one-third to surviving husband or wife, remainder in equal shares to children, or their descendants; if no surviving husband or wife, then equal shares to the children, or their descendants. 2. If no issue, one-half to surviving husband or wife; other half to decedent's father and mother equally, but if either be dead, whole of said half to the survivor. If both be dead, half to brothers and sisters or their descendants, in equal shares. If no husband, nor wife, nor issue survive decedent, whole to father and mother equally; if one be dead, whole to survivor. 3. If neither husband, wife, issue, father or mother, to brothers and sisters equally, or their descendants. 4. Whole to surviving husband or wife, when no issue and no father, mother, brother or sister. 5. If neither husband, wife, issue, father, mother, sister, brother, nor issue of brother or sister, to next of kin in equal degree, and in equal shares, collaterals claiming through nearest ancestor being preferred. 6. Share of deceased minor and unmarried child goes equally to other children or their issue. 7. If deceased were a widower or widow, and without kin, that part of his estate which was common property at the death of his spouse goes to her father; if he be dead, to the mother; if both be dead, to brothers and sisters, and their descendants, equally. 8. If no husband, wife nor kindred, the estate escheats for benefit of school fund.

Illinois.—Surviving husband or wife has dower in one-third of realty of which either was seized of inheritance during marriage. Either may release by joining in the other's deed. Realty and personalty of intestates descend—1. Equally to children and their descendants, the latter taking share of parent. 2. When no widow nor surviving husband, and no child nor descendant thereof, to parents, brothers and sisters, and their descendants, in equal parts, each parent taking a child's part, and the survivor a double portion. If no parent, to brothers and sisters, and their descendants. 3. Widow or husband surviving, but no child or issue thereof, half the realty and all of personalty to widow or surviving husband, other half of realty descending as in other cases where there is no child nor issue thereof. 4. When widow or husband survive, and also child or issue of such, widow or surviving husband takes one-third of personalty. 5. If no child nor issue thereof, and no parent, brother or sister, nor descendant of such, and no widow nor surviving husband, estate goes in equal parts to next of kin in equal degree. No distinction between whole or half-blood. 6. If widow or husband survive, but no kindred, estate goes to such survivor. 7. If no widow, surviving husband nor kin, estate escheats to county in which it, or greater part thereof, is situated. The State imposes a graduated inheritance tax.

Indiana.—Dower and tenancy by courtesy abolished. A widower inherits, as heir of wife, one-third of her realty, subject to its proportion of her ante-nuptial debts. A widow, as heir of husband, inherits one-third of his realty in fee, free of all debts, if said realty is below $10,000 in value; if over $10,000 and below $20,000, she inherits one-fourth; if over $20,000 one-fifth. Residue of intestate's estate, real and personal, descends to children in equal proportions. Degrees of kindred are based on civil law rules. Grandchildren inherit what would have descended to their father or mother. Other lineal or collateral relatives inherit by same rule. If intestate leave no lawful issue nor descendants of such, half the estate goes to the father and mother jointly, or to the survivor; other half to brothers and sisters, or their descendants, as tenants in common. If neither father nor mother, brothers and sisters and their descendants take the inheritance in common. If no brothers nor sisters, the father and mother take. If neither father, mother, brothers, sisters, children nor grandchildren, estate descends along paternal line, if it came thence; and along maternal line, if it came thence. If it came to intestate otherwise than by gift, devise or descent, half goes to maternal and half to paternal line. If intestate husband leave widow and one child, his realty goes half to widow and half to child; if two children, his personalty is divided equally between widow and the two children; if more than two children, widow's share to be still a third.

Indian Territory.—Widow entitled to dower of one-third of estate, of whatever kind, of deceased husband. If no children, she becomes entitled to one-half of personalty. Intestate's estate descends —1. To children or their descendants in equal parts. 2. If no children, to father; if none, to mother; if none, to brothers and sisters, in equal parts. 3. If no children nor descendants, father, mother, brothers or sisters nor their descendants, to grandfather, grandmother, uncles and aunts and their descendants in equal parts; and so in other cases, without end, passing to nearest lineal ancestor and their children and descendants in equal parts. Half-blood inherits equally with whole-blood in same degree.

Iowa.—Widow receives as dower one-third in value of realty, and same proportion of personalty after payment of debts. Husband receives same share in wife's estate. Descent is to children in equal shares, and to their descendants. If no issue, half to his parents, or survivor of them, other half to wife. If no wife, whole to his parents. If no parents, their would-have-been portion goes as if they had survived intestate and died in its possession; and so, through ascending ancestors and their issue. Surviving husband and his heirs inherit wife's estate in same manner.

Kansas.—Dower and courtesy abolished. One-half of deceased husband's realty set apart for widow in fee simple, but not if at time of conveyance wife was not, nor never had been, a resident of the State. Remaining estate descends equally to children, or their descendants, the latter taking only parent's share. If no children, or issue of such, whole estate to widow. If no wife nor issue, whole to his parents, or survivor of them. If no parents, disposition is as if they had survived intestate, and had died in possession of their portion. And so through ascending ancestors and their issue. Half-blood inherits equally with whole-blood. Posthumous children inherit. Personalty descends same as if it were realty.

Kentucky.—Surviving husband or wife has life estate in one-third of decedent's realty, unless relinquished during life, and an absolute estate in one-half of surplus personalty of decedent. Realty of intestate decedent descends in parcenary: 1. To his children and their descendants. 2. If none, to his father and mother, a moiety each. If father be dead, mother, if living, inherits a moiety, the other going to brothers and sisters and their descendants. If mother be dead, whole to the father. 3. If no father and mother, to brothers and sisters and their descendants. If none, then, 4, one moiety to paternal, the other to maternal kindred as follows: (*a*) to grandfather and grandmother equally, if living; if one be dead, entire moiety to survivor. (*b*) If no grandfather nor grandmother, to uncles and aunts and their descendants. (*c*) If none, to great-grandfather and great-grandmother, as in (*a*) above. (*d*) If none, to brothers and sisters of grandfathers and grandmothers and their descendants. And so, without end, to nearest lineal ancestors and descendants. 5. If no such kindred to one of parents, whole to kindred of the other. If no paternal nor maternal kindred, whole to husband or wife of intestate; or, if either be dead, to his or her kindred, as if he or she had survived intestate, and died entitled to estate. Estates derived from parents by inheritance or gift go back to parents if intestate dies without issue. Collaterals of half-blood inherit only half of that of whole-blood. Posthumous children inherit. Husband takes one-half of deceased wife's personalty, and widow one-half of deceased husband's.

Louisiana.—Dowry is agreed upon and settled prior to marriage, and cannot be settled nor increased during marriage. Intestate's estates descend: 1. To children in equal portion and by heads when of same degree; by roots, when all or some inherit by representation. 2. To father and mother, sisters and brothers, one-half in equal parts to father and mother; other half in equal parts to brothers and sisters. If one parent be dead, his or her share to brothers and sisters; if no brothers or sisters, whole to surviving parent or parents. Half-blood inherits only half of whole-blood portions. 3. Ascendant estates go in equal shares to paternal and maternal lines. Ascendants inherit the money they may have settled as dower. 4. To nearest collaterals. 5. Surviving spouse. 6. If no heirs, to State. Necessitous survivor of rich husband or wife has right to marital portion, usually a fourth, where no children, or less than three; if more than three, then a child's share.

Maine.—Dower and courtesy abolished, and instead widow or widower gets by descent one-third of decedent's realty in fee. Intestate's estate, excepting wild lands, descends: 1. One-third to widow, balance to issue; if no issue, half to widow; if no kindred, whole to widow. Same as to widower, in wife's estate. 2. Remainder, including wild lands, and if no widow or widower, to children in equal shares and to their issue. If no children, to his lineal descendants of like degree; if not, according to right of representation. 3. If no issue, to father and mother in equal shares. 4. If no issue nor father, one-half to mother. If no issue nor mother, one half to father. In either case, other half to brothers and sisters, or their children or grandchildren, by representation. 5. If no issue, father, brothers nor sisters, to mother. If no issue, mother, brothers nor sisters, to father. In either case to exclusion of children of deceased brothers and sisters. 6. If none of above, to next of kin in equal degree; when claiming through different ancestors, to those of nearest ancestry. 7. Estate of unmarried minor, derived from his parents, descends to other children of same parent, and to issue of those deceased. 8. When no widow, widower or kindred, estate escheats to State. Half-blood inherits equally with whole-blood of same degree. Personalty descends by same rules as realty, subject (1) to allowance to widow; (2) if issue and widow, latter takes one-third; if no issue, one-half; if no kindred, the whole. Same as to widower.

Maryland.—Widow entitled to common law dower in lands held by equitable as well as legal title in husband at any time during coverture; but purchase-money or other lien on same remains paramount. Husband acquires by marriage an estate for life in one-third of lands owned by wife at date of marriage, purchase-money or other liens remaining paramount. Wife cannot, by conveyance, bar her husband's estate. Descent is: 1. To children and their descendants. 2. If none, to father, if estate descended from him. 3. If no father, to brothers and sisters of the blood of the father, and their descendants. 4. If none, to paternal grandfather. 5. If none, to his descendants and their descendants, in equal degree. 6. If none, to father of such grandfather; if none, to descendants of the father of such grandfather, in equal degree; and so, passing to next lineal male paternal ancestor, or to his descendants in equal degree. 7. If no paternal ancestor or descendant, to intestate's mother. 8. If none, to her descendants of equal degree equally. 9. If no mother nor her descendants, to maternal ancestors and descendants, same as above respecting paternal ancestors. 10. If intestate die without issue, and estate came from his mother, it goes back to her. 11. If no mother, to brothers and sisters of blood of the mother, equally, and to their descendants. 12. If none, to grandfather on part of the mother. 13. If none, to his descendants of equal degree, equally. 14. If none, to father of such grandfather, and his descendants. And so on, passing to next male maternal ancestor, and descendants. 15. If no such maternal ancestor nor descendants, to father of intestate. 16. If no father nor his descendants, to paternal ancestors and their descendants, same as before as to maternal ancestors. 17. If estate is vested in intestate by purchase and there be no children nor descendants of such, it descends to intestate's brothers and sisters of whole-blood, of equal degree, equally, and to their descendants. 18. If none of whole-blood, to those of half-blood.

Massachusetts.—Widow's dower is substantially as at common law. Realty descends in equal shares to issue of same degree, otherwise by right of representation. If no issue, to father and mother, or to survivor. If no issue, father or mother, to brothers and sisters and their issue, equally, if of same degree, otherwise by representation. If none of above, to next of kin in equal degree, according to civil law. If no widow, husband or kindred, it escheats to the State. Husband has courtesy in wife's lands, if there has been issue born to them. If no issue he has estate for life in half her lands. If no issue surviving her, then to $5,000 fee. If no kindred, he takes whole estate. Wife takes fee of $5,000, if husband leave no issue, and also life estate in half his other realty; but may elect to take dower instead of such life estate. Personalty of deceased wife goes to husband, if no issue; if issue, half to him, balance descending as realty. Personalty of intestate husband descends as realty, except that if there is a widow and issue, she takes a third; if widow and no issue, the $5,000 and half of excess over $10,000; if widow and no kindred, she takes all.

Michigan.—Widow entitled to dower estate of one-third in husband's lands, but a purchase-money mortgage remains paramount. Non-resident wife not entitled to dower in lands conveyed by husband. Wife may contract for release of dower. Realty of intestates descends: 1. To children and their issue; or, if none, to other lineal descendants by right of representation. 2. If husband or widow survive, and no issue, half to husband or widow, remainder to father and mother in equal shares. If no issue, husband or widow, to father and mother in equal shares, or to survivor of them. If no issue, father or mother, to brothers and sisters, and their descendants by right of representation, subject to the provision above made for husband or widow, if living. The provision for widow is in lieu of her dower. 3. If none of above survive, then to next of kin of equal degree, those claiming through nearest ancestor preferred. 4. Share of unmarried minor child of intestate goes to other children of same parent, or their issue. 5. If intestate leave husband or wife, and no other child or lineal descendants, the estate goes to hus-estate escheats to State for benefit of primary band or wife. 6. If decedent leave no kindred, school fund.

Minnesota.—Survivor of intestate husband or wife takes homestead for life discharged of debt, except mortgage executed by both, or purchase-money mortgage. Widow entitled to an allowance of furniture not exceeding $500 in value, and of other personalty not exceeding $500. If intestate leaves no issue, the homestead becomes absolute property of surviving husband or wife; and survivor is entitled to one-third of other lands of which intestate died seized, after it has borne its share of debts. Residue of realty descends: 1. To children and their issue, equally and by representation. 2. If no children, whole to surviving consort. 3. If none of above, to intestate's father. 4. If none, to mother. 5. If none, to brothers and sisters, and their descendants, by representation. 6. If none, to next of kin of equal degree, those of nearest ancestor preferred. 7. Estate of intestate unmarried minor goes to other children and their issue of same parent. 8. If no issue, husband, wife or kindred, estate escheats to State. Personalty descends same as realty, excepting when provision is made for widow and children. Half-blood inherits as whole-blood, unless inheritance comes to intestate through an ancestor. Then only the blood of that ancestor inherits.

Mississippi.—Dower and courtesy do not exist. Realty and personalty of intestate decedent descends: 1. To children equally, and to their descendants, the latter taking parents' share. 2. If no children nor descendants of such, to brothers and sisters, and their descendants, in equal parts. 3. If none of above, to father, if living; if not, to mother; if both be living, to both in equal parts. 4. If none of above, to next of kin, in equal degree, according to civil law rules. No representation among collaterals, except among brothers and sisters. Kindred of whole-blood in equal degree preferred to those of half-blood in same degree. Widow may, within six months of husband's death, renounce any devise or bequest to her in his will, and elect to take her legal share in his estate, as if he had died intestate, except that even if husband left no child nor descendant of such, widow shall be entitled to one-half of husband's realty and personalty. So husband may renounce, and elect, with like effect.

Missouri.—Widow endowed of one-third of husband's lands during life. In lieu thereof, she may elect to take a child's part, if she does so in writing within fifteen months after letters of administration. Such part becomes hers absolutely. Realty and personalty of intestate descend: 1. To children in equal parts. 2. If none nor their descendants, to father, mother, sisters and brothers, or their descendants, in equal parts. 3. If none of above, to husband or wife. 4. If none, to grandfather, grandmother, uncles, aunts, and their descendants, in equal parts. 5. If none of above, to great-grandmothers and great-grandfathers and their descendants in equal parts; and so in all cases without end, to nearest lineal descendants equally. 6. If none of above, to nearest of kin of husband or wife, in like course as if such husband or wife had survived the intestate, and then died entitled to the estate. Half-blood takes only half of share of whole-blood. All heirs in same degree of relation to intestate take *per capita;* otherwise, *per stirpes.* When husband dies without issue, widow takes half of his estate. If wife dies without issue, husband is entitled to courtesy.

Montana.—Widow entitled to dower of one-third in husband's lands, but same not to affect a mortgage for purchase-money. Devise to widow bars dower, unless she elect, within a year of probate, to prefer dower to the devise. Decedent's realty and personalty descends thus: 1. If decedent leave husband or wife and one child, or issue thereof, equally between the survivor and child, or issue thereof. 2. If more than one child, and issue of deceased child or children, one-third to surviving husband or wife, remainder equally to children, or issue of such by representation; but if no child living at decedent's death, remainder to lineal descendants. 3. If no surviving husband or wife, but issue, whole to such issue. 4. If no issue, in equal shares to surviving husband or wife, and to decedent's father and mother in equal parts; and if either of latter be dead, entire moiety to survivor. 5. If no father or mother, half in equal shares to brothers and sisters and their descendants. 6. If a surviving husband or wife, and no father, mother, sisters or brothers, nor descendants of such, whole estate to such surviving husband or wife. 7. If none of above, to next of kin in equal degree, those of nearest ancestry preferred. If none of above, estate escheats to the State.

Nebraska.—Widow's dower is life estate of one-third of husband's lands. She may elect between dower and a devise, within one year from husband's death. A purchase-money mortgage precedes dower. Wife bars dower by joining in deed of conveyance. When wife dies without issue, husband takes life estate in her estate of inheritance as tenant by courtesy, at his death it goes to her relatives. Descent is: 1. To children equally, and to their issue, *per stirpes.* 2. If none, to widow during life, then to his father. 3. If no issue nor widow, to his father. 4. If no issue, widow nor father, to brothers and sisters equally, and to their descendants by representation. 5. But if a mother, she takes equally with brothers and sisters. 6. If no issue, widow, father, sisters or brothers, to mother, to exclusion of issue of brothers and sisters. 7. If none of above, all to next of kin. 8. If no kindred, all to widow. 9. Estate of unmarried minor child, coming by inheritance from deceased parent, goes to other children of said parent.

Nevada.—No dower. Descent of intestate estate is: 1. Where survivors are husband or wife and one child or issue thereof, half to surviving husband or wife, and half to child, or issue thereof. If surviving husband or wife and more than one child, one-third to such survivor, balance in equal shares to children. If lineal descendants, but no children, remainder to said descendants. 2. If no issue, to surviving husband or wife. If none, to intestate's father, if any. 3. If no father, in equal shares to brothers and sisters; and if there be a mother, she takes a brother's or sister's share. 4. If a mother, but no brothers or sisters, the mother takes the estate to exclusion of issue of deceased brothers and sisters. 5. If no issue, father, mother, brothers or sisters, all to surviving husband or wife. 6. If none of above and no lineal descendants, all to next of kin. 7. In default of heirs, estate escheats to State.

New Hampshire.—Widow's dower is so much of husband's real estate as will produce a yearly income equal to one-third of that yielded by the estate in which she has dower. Husband is entitled to courtesy in wife's estate. Widow is also entitled to a distributive share in deceased husband's personalty equal to a third thereof, if he leave issue; half, if he leave no issue. Husband has same distributive share in wife's personalty. By waiving her right to any devise, dower or homestead right, widow may become entitled to a fee simple in one-third of husband's estate, if he leave issue; and to half thereof, if he leave no issue. Intestate's realty descends: 1. To children equally and to legal issue thereof. 2. If no issue, to father. 3. If no issue or father, in equal shares to mother, brothers and sisters, or their representatives. 4. If none above, to next of kin, equally. 5. If child or children, and no widow or widower, whole to children in equal shares. No representation beyond degree of brothers' and sisters' grandchildren. Estate of unmarried minor, derived from parents, goes to children of said parents and their representatives. Personalty of decedent is distributed by court to: 1. Widow, the share prescribed by law. 2. Residue to same persons and under same rules as if realty.

New Jersey.—Widow's dower is life estate of one-third of husband's realty. She may enjoy the mansion till dower is assigned. Husband has common law courtesy in wife's estate. Descent is: 1. To intestate's children and their issue, by representation, to remotest degree. 2. To brothers and sisters of whole-blood, and to their issue. 3. To father, unless the estate came from the mother, when it descends as if the father had previously died. 4. To the mother for life, and after her death as if the mother had previously died. 5. If no such kindred, to brothers and sisters of half-blood, and their issue; but if the inheritance came to decedent from an ancestor, those not of the blood of such ancestor are excluded, provided there be any blood of that ancestor to inherit.

New Mexico.—Dower does not exist. One-half of acquest property, after payment of debts, is set apart to surviving wife or husband. Remainder of acquest property and a separate estate of decedent descends, in absence of a will, as follows: 1. One-fourth to surviving wife or husband; remainder in equal shares to children. 2. If no issue, whole to wife. 3. If no wife, what would have been her portion, to his parents, or the survivor of them. 4. If no parents, it passes as if the parents had outlived the intestate, or died in possession of their share. And so throughout the ancestral line. 5. If no heirs thus found, estate goes by like rules to heirs of the wife of intestate, if dead; and if he had more than one wife who died, it goes equally to heirs of all such wives by representation.

New York.—Widow's dower is a life estate in one-third of husband's realty. Husband has courtesy in estate of wife who has borne him one child. But she may dispose of the entire use of her estate, by devise or deed, during his life. Descent of intestate estate is: 1. To children and descendants. 2. If none, to father. 3. If none, to mother. 4. If none, to brothers and sisters, and their descendants. 5. If none, to more distant collateral relations, the descendants of those deceased taking by representation parents' shares, *per stirpes.* 6. One-third of personalty, if any descendant, goes to widow or husband. If no descendant, all to husband. If no parent and no descendant, one-half to widow. If no parent nor descendant, but brother or sister, nephew or niece, the other half to them. If none such, all to widow. What does not go to husband or widow goes to the others. Collaterals take by representation, same as in realty. Posthumous children inherit as others.

North Carolina.—Widow entitled to life estate of one-third of husband's lands. Husband has estate by courtesy, if wife bore issue capable of inheriting. Estate of an intestate descends lineally forever to the issue of decedent. It does not ascend lineally except as herein provided. All advancements made to children to be accounted for, and their inheritable shares equalized. Lineal descendants represent their ancestor, and stand in his place. On failure of lineal descendants, and where the inheritance came by descent, gift, devise or settlement from an ancestor, to whom the person thus advanced would have been an heir, the inheritance goes to the next collateral relations of the intestate capable of inheriting, and who were of the blood of such ancestor. On failure of lineal descendants, and of above conditions as to acquisition, descent is to next collateral relations capable of inheriting, whether of paternal or maternal line. Collaterals of half-blood inherit as those of whole-blood. If intestate have left no issue capable of inheriting, nor brother nor sister nor issue of such, the inheritance vests in the father, if living; if not, in the mother. When there is none to claim as heir of an intestate, his wife shall inherit.

North Dakota.—Dower and courtesy are abolished. Intestate's estate, except homestead and certain personalty, descends thus: 1. If surviving husband or wife and one child, equal shares to each. 2. If no surviving husband or wife, whole to children in equal shares. 3. If no children, and estate is not over $5,000, all to surviving husband or wife; and the excess over $5,000, if any, goes one-half to surviving husband or wife, other half to decedent's father, if living; if not, to the mother. 4. If no issue, husband or wife, to the father; if none, to the mother. 5. If no issue, husband, wife, father, brothers or sisters, to the mother, to exclusion of issue of brothers and sisters. 6. If a surviving husband or wife, and no issue, father, mother, sister or brother, whole to surviving husband or wife. 7. If no issue, husband, wife, father nor mother, to brothers and sisters equally, and to their issue by representation. 8. If none of the above, to next of kin of equal degree, those claiming through nearest ancestor preferred. Share of deceased unmarried minor goes to brothers and sisters. 9. If no kindred, estate escheats to State for benefit of school fund. Half-blood inherits equally with whole-blood, unless estate came from one of intestate's ancestors, when half-blood is excluded. Homestead descends to surviving wife or husband; if neither, to minor child or children till youngest comes of age. When conditions of homestead estate are satisfied, it is distributed as other property.

Ohio.—Widow's dower is life estate in one-third of husband's realty, and in interest held by article, bond or other evidence of claim. Husband has courtesy. Either may release by joining in conveyance. Both may elect to take dower or testamentary provision. Descent of acquired realty and personalty is: 1. To children of intestate and legal representatives. 2. To husband or wife. 3. To brothers and sisters of whole-blood and their representatives. 4. To brothers and sisters of half-blood and representatives. 5. To father; if dead, to mother. 6. To next of kin, or representatives, of whole-blood.

If realty came by descent, devise or gift from ancestor, it passes: 1. To children or representatives. 2. To husband or wife during life. 3. To brothers or sisters of blood of ancestor. 4. If no such brothers or sisters or legal representatives, and estate came from living ancestor, to such ancestor. 5. If such ancestor be dead, to children of such ancestor or representatives. 6. If none such, to husband or wife, relict of such ancestor, if a parent of decedent, during life. On death of such, or if no such, to brothers and sisters of such ancestor, or representatives. If no such brothers and sisters, or representatives, to brothers and sisters of half-blood, or representatives. 7. If no such, to next of kin of blood of ancestor whence estate came and legal representatives.

Oklahoma.—Dower and courtesy do not exist. Surviving husband or wife resides on homestead till legally disposed of. On death of husband and wife, children occupy till youngest is of age. Homestead equipments of a certain value remain with it. Court may also set apart certain other property for use of surviving husband or wife and minor child or children. Subject to these, and to lawful debts, intestate's estate descends as follows: 1. If surviving husband or wife and one child, or issue thereof, half to each. 2. If surviving husband or wife and more than one child, or issue thereof, one-third to surviving husband or wife, remaining two-thirds in equal shares to children, or their issue by representation. 3. If no child or children, remainder to lineal descendants of equal degree equally; but if of unequal degree, by representation. 4. If no surviving husband or wife, but issue, whole to such issue, or descendants of same, by right of representation. 5. If no issue, equally to surviving husband or wife, and to decedent's father. 6. If no father, half in equal parts to brothers and sisters, by representation. If a mother also, she takes equally with a brother or sister. If no surviving husband or wife, nor issue, whole to father. 7. If no issue, husband, wife, father nor mother, to brothers and sisters, and their descendants, by representation. 8. If none of above except a mother, she takes all to exclusion of descendants of brothers and sisters. 9. If a surviving husband or wife, but no issue, father, mother, brother or sister, all to such surviving husband or wife. 10. If none of above, to next of kin in equal degree, those claiming through nearest ancestor preferred. 11. Estate of deceased unmarried minor, coming by inheritance from decedent, goes in equal parts to children, and their issue, by same parent. 12. If no husband, wife nor kindred, estate escheats to State for benefit of school fund.

Oregon.—Widow's dower estate is life interest in one-half of husband's lands. Husband has courtesy for life in wife's lands, whether there be issue or not. Intestate's realty descends: 1. Equally to children, and their issue, by representation. 2. If no child, to all his or her lineal representatives, who take equally if of same degree, otherwise, by representation. 3. If no lineal descendants, all to widow, or if intestate be a married woman without lineal descendants, all to husband. If no wife nor husband, to his or her father. 4. If no husband, wife, father or lineal descendants, equally to brothers and sisters of intestate, and their descendants, by representation; but if a mother, she takes a brother's or sister's share. 5. If none of above, except a mother, she takes all to the exclusion of issue of deceased brothers or sisters. 6. If none of above, to next of kin of equal degree, those claiming through nearest ancestor preferred. 7. Personalty is distributed by same rules, except that widow or surviving husband takes half when there is issue; when no issue, all. Half-blood inherits as whole-blood.

Pennsylvania.—Where there is issue, a widow is entitled to one-third of deceased husband's realty for her life, and to one-third of personalty absolutely. Where no issue, but collateral heirs or kindred, widow is entitled for life to one-half of husband's realty, and to one-half of personalty absolutely. Husband has courtesy in wife's estate. Widow may retain $300 in addition to dower. If intestate husband leaves no known heirs, widow succeeds to all his realty in fee. Subject to above estates, realty of intestate decedent descends: 1. To children and their issue equally, if in same degree. If not, they take by representation, not per capita. 2. If no issue, to father and mother jointly, and to the survivor for life; if both be dead, to brothers and sisters of whole-blood, and their children and grandchildren, in fee, in equal shares. 3. If no issue of intestate, nor brother, sister, nephew or niece of whole-blood, to next of kin being decendants of brothers and sisters of whole-blood. 4. If no issue, nor brothers and sisters of whole-blood, nor their descendants, to father and mother for such estate as the intestate had therein. 5. If none of above, to brothers and sisters of half-blood and their descendants. 6. If none of above, to next of kin, of blood of last purchaser. 7. If none, to widow or surviving husband in fee. 8. If none, to next of kin generally. Where grandparents are entitled as next of kin, their children and descendants shall represent them. Personalty is distributed thus: 1. If issue, widow takes a third absolutely. 2. If no issue, she takes a half. 3. If issue, surviving husband takes an equal share with the children. 4. If no issue, he takes all. Subject to above, children and issue divide personalty same as realty. 5. If no issue, to father and mother, or survivor. 6. If no issue, surviving husband, father or mother, to brothers and sisters, and descendants thereof, same as realty, but without distinction of blood.

Rhode Island.—Widow dowable in one-third of husband's realty. Also entitled to court allowance suited to her situation and support. Husband entitled to courtesy. Descent of intestate's realty is: 1. To children or descendants of same. 2. If none, to father. 3. If none, to mother, brothers and sisters and their descendants. 4. If none of above, in equal moieties to paternal and maternal kin: (*a*) to grandfather; (*b*) if no grandfather, to grandmother, uncles and aunts, on same side or their descendants; (*c*) if none, to great-grandfather; (*d*) if none, to great-grandmothers, their brothers and sisters and descendants. Personalty not otherwise disposed of goes: 1. One-half to widow, if no issue. 2. One-third to widow, if issue. 3. Residue to intestate's heirs, the same as realty, but without distinction of blood.

South Carolina.—Courtesy is abolished. Widow takes statutory dower as below. If intestate leave widow and one or more children, she takes one-third of his estate; other two-thirds is divided equally between the children; or if only one child it takes all of it. If no child or other lineal descendant, but a widow, father, mother, brother or sister of whole-blood, widow takes one-half, other half to be divided equally between the father, or, if he be dead, the mother and brethren of whole-blood. If no father or mother, but brothers or sisters of whole-blood, widow takes one-half, and brothers and sisters the other half as tenants in common. If there be a widow and brothers and sisters of half-blood and child or children of brothers and sisters of whole-blood, widow takes one-half, and other half goes equally to said brothers and sisters of half-blood, and child or children of brothers and sisters of whole-blood. Husband and wife inherit from one another.

South Dakota.—Dower and courtesy do not exist. Estate of intestate decedent descends as follows: 1. If husband or wife survive, and one child, equal shares to each. 2. If two or more children, one-third to surviving husband or wife, balance equally to children, or their issue, by representation. 3. If no children, or issue of such, half to surviving husband or wife, other half to intestate's father; or, if he be dead, in equal shares to brothers, sisters and mother, issue of such brothers and sisters taking by representation. 4. If no surviving husband or wife, but issue, whole to such issue and their descendants by representation. 5. If no issue, nor surviving husband or wife, to the father; or if none, to the brothers, sisters and mother. 6. If no issue, father, mother, brothers nor sisters, whole to surviving husband or wife. 7. If no husband, wife, or kindred, the estate escheats to the State for benefit of school fund. The homestead exemption continues after death for benefit of surviving husband or wife and children, or until youngest child reaches its majority. In addition certain personalty may be set aside for surviving husband or wife and children.

Tennessee.—Widow takes dowable estate in one-third of husband's lands, even if mortgaged or conveyed in trust to pay debts when husband dies before foreclosure or sale. She may bar dower by joining husband in deed. Husband has estate by courtesy in wife's lands. Estate of intestate descends thus: 1. To children equally, and to descendants of such by representation. 2. If no issue, nor brothers and sisters, or issue thereof, to either parent. 3. If intestate acquired estate, and died without issue, to brothers and sisters of whole and half-blood, and to their descendants by representation. 4. If no brothers or sisters, nor issue of such, to father and mother as tenants in common. 5. If both be dead, to heirs of mother and father, by moieties, in equal degree. 6. Where estate came to decedent from parent or ancestor by gift, devise or descent, and decedent leave no issue, and have brothers or sisters of paternal and maternal line of half-blood, the estate shall be inherited by such brothers and sisters on the part of the parent from whom it came, in same manner as by brothers and sisters of the whole-blood, until the line of such parents is exhausted of the half-blood, to the exclusion of the other line. 7. If no brothers or sisters, to parent from whom, or whose ancestor, it came. 8. If both parents be dead, to heirs of parent from whom, or whose ancestor, it came. Same rules apply to inheritance by grandchildren and nephews. 9. If no heirs, husband or wife takes the estate in fee simple. Personal estate goes to widow and children in equal shares, widow taking a child's share. If no children, all to widow; and if no widow, all to children. If no children, to father. If no father, to mother, brothers and sisters. If none, to the mother. If no mother, brothers or sisters, to next of kin.

Texas.—No dower in the State. Estate of intestate descends thus: 1. To children and their issue. 2. If none, to father and mother equally. 3. If only a father or mother survive, survivor takes half; other half to decedent's brothers and sisters and descendants thereof. 4. If no such descendants, whole to surviving parent. 5. If neither father nor mother, whole to brothers and sisters and their descendants. 6. If no kindred as aforesaid, estate is divided into two equal moieties, one for paternal, the other for maternal kindred, and goes thus: (*a*) To grandfather and grandmother equally, or, if one be dead, half to survivor, other half to descendants of such deceased grandparent. (*b*) If no surviving grandparent, whole to their descendants. And so without end, along line of nearest lineal ancestor and descendants. 7. If husband or wife survive, and have issue, such survivor takes one-third of personalty, balance equally to children and their issue. Surviving husband or wife also entitled to an estate for life in one-third of realty, with remainder to intestate's child or children and descendants thereof. If no issue, nor descendants thereof, surviving husband or wife takes all the personalty, and half of the lands of decedent, without remainder to any one; the other half to descend according to the rules of descent. But if decedent leave no surviving father, mother, brothers or sisters, nor descendants of such, the surviving husband or wife takes whole of decedent's estate. Half-blood takes only half with whole-blood.

Utah.—No dower nor courtesy. But on the death of husband, one-third of his realty is set apart in fee for widow, if a resident of the State. Estate of intestate descends thus: 1. In equal shares to surviving husband or wife and one child, or its issue. 2. If more than one child, or issue of child or children, one-third to surviving husband or wife, remainder equally to children, or their descendants, by representation; but if no such child or children, or issue thereof, the above remainder goes to decedent's lineal descendants of same degree, equally; if of unequal degree, by representation; and above share to widow not to be in addition to her interest in husband's estates provided for her in lieu of dower. 3. If no surviving husband or wife, but issue, whole to such issue, or descendants thereof, by right of representation. 4. If no issue, all realty and personalty, not over $5,000 in value, to surviving husband or wife; if over $5,000 in value, the excess goes half to surviving husband or wife, and other half to decedent's father or mother equally; and if either be dead, whole of said half to survivor. 5. If no father or mother, half of above excess equally to brothers and sisters and their descendants, by representation. 6. If no issue nor husband nor wife, estate goes to father and mother equally, or, if either be dead, to the survivor. 7. If no issue, husband, wife, father nor mother, to brothers and sisters, and their descendants, equally by representation. 8. If surviving husband or wife, but no issue, father, mother, brothers nor sisters, whole to surviving husband or wife. 9. If no issue, husband, wife, mother, father, brother nor sister, to next of kin of equal degree, those claiming through nearest ancestor preferred. 10. Estate of unmarried minor coming by inheritance goes equally to other children of same parent, and to their issue by representation. 11. If husband or wife and no heirs to take, estate escheats to the State.

Vermont.—Widow takes one-third of realty as dower, unless barred. If estate be indivisible, she will be endowed of one-third of the rents thereof. If personalty does not exceed $300, court may assign it all to her. Personalty, after payment of debts, descends as realty. Realty of intestate descends thus: 1. If no issue, widow takes all, if not over $2,000 in value; if over $2,000, widow takes $2,000 and half of remainder; balance to descend in same manner as if no widow survived. 2. If wife leave no issue, husband takes same share as wife would have in his estate if he left no issue. 3. If no issue nor surviving husband or wife, equally to his father and mother; if latter be dead, to the father; if father be dead, to mother. 4. If no issue, husband, wife, father nor mother, equally to brothers and sisters and their legal representatives. 5. If none of above, to next of kin, in equal degree; but no person shall be entitled by right of representation to the share of such next of kin who shall have died. Half-blood inherits equally with whole-blood of same degree. 6. If no kin to inherit, estate escheats to town for use of schools.

Virginia.—Courtesy as at common law. Widow is endowed of one-third of husband's real estate, unless she has relinquished. Realty of intestate descends thus: 1. To children and their descendants. 2. If no issue, nor descendant of such, to father. 3. If no father, to mother, brothers and sisters, and their descendants. 4. If none, one moiety to paternal, and one to maternal, kindred, as follows: (*a*) to grandfather; (*b*) if none, to grandmother, uncles and aunts on same side, and to their descendants; (*c*) if none, to great-grandfathers; (*d*) if none, to great-grandmothers, and brothers and sisters of great-grandfathers and great grandmothers and their descendants; (*e*) and so on to nearest lineal male ancestor; or, if none, to female ancestors in same degree and their descendants. 4. If no father, mother, brother nor sister, nor descendant of such, nor any paternal kindred, whole to maternal kindred; and if neither paternal nor maternal kindred, whole to husband or wife. 5.

If husband or wife be dead, to his or her kindred, as if either husband or wife survived the intestate, and died entitled to the estate. 6. Collaterals of half-blood inherit only half with those of whole blood. 7. Those entitled in same degree take per capita, but descendants of such as are dead take *per stirpes.* 8. Estate of unmarried minor passes to kindred of parent from whom it was derived. 9. Personalty passes same as realty, except that (*a*) personalty of infant passes as if it were an adult; (*b*) if widow has issue, she takes a third; (*c*) if no issue, she takes all that came to her husband by virtue of his marriage, and which remained in kind at his death; also one-third of his personalty, if he leave issue by another marriage; but if no issue, she is entitled to one-half.

Washington.—Dower and courtesy abolished. Realty of intestate decedent descends thus: 1. If husband or wife survive, and one child, or issue thereof, equally to surviving husband or wife, and to such child, or its issue. 2. If surviving husband or wife, and children, or their issue, one-third to surviving husband or wife, remainder equally to such children, or their descendants, by representation; but if no issue, remainder to lineal descendants. 3. If no issue, equally to surviving husband or wife and decedent's father and mother. 4. If no father and mother, half equally to brothers and sisters, or their issue. 5. If no issue, nor husband nor wife, all to father and mother. 6. If no issue, wife, father, nor mother, equally to brothers and sisters, or their issue. 7. If decedent be husband or wife, and leave none of above-named kindred, estate goes to survivor. 8. If no issue, husband or wife, father, mother, brothers nor sisters, to next of kin. 9. Estate of unmarried minor goes equally to children of same parent, and to their issue, by representation. 10. If no wife nor kindred, estate escheats to State. 11. Community property goes half to wife; other half in the general way.

West Virginia.—Widow is endowed of one-third of husband's realty, unless legally barred. Husband is entitled to courtesy, whether issue or not. Estate of intestate decedent passes: 1. To his children and descendants. 2. If none, to father. 3. If none, to mother, brothers and sisters, and their descendants. 4. If none, to paternal and maternal kindred in equal moieties. 5. Collaterals of half-blood inherit only half with whole-blood. 6. Personalty descends as realty; but if children, the husband or wife takes a third; if no children, all.

Wisconsin.—Widow's dower is one-third for life of husband's realty, unless barred. Does not prevail against mortgagee. Descent of intestate's estate is: 1. Equally to children, and their issue, by representation. 2. If no child, equally to other lineal descendants, and to their issue, by representation. 3. If no issue of decedent, to widow; and if she leave no issue, to parents, or the survivor of them. 4. If decedent be a wife, and leave no issue, whole to husband. 5. If she leave neither issue nor husband, to her parents, or to survivor of them. 6. If deceased husband leave no issue, widow, father nor mother, equally to brothers and sisters, and their descendants by representation. 7. If none of above, to next of kin of equal degree, those claiming through nearest ancestor preferred. 8. Estate of unmarried minor, which came from parent, goes equally to children of same parent, and to their issue by representation. 9. If intestate leave no widow nor kindred, estate escheats to State. 10. If husband leave no issue, the homestead descends to widow. If widow and issue, to widow during widowhood; and, on her marriage or death, to heirs. If issue and no widow, to such issue. If no issue or widow, then as per statute. 11. Undevised personalty is distributed: (*a*) to value of $450 selected articles, to widow; (*b*) to widow and children a reasonable court allowance, till their shares are assigned; (*c*) residue as per statute.

Wyoming.—No dower nor courtesy. Estate of intestate descends: 1. If husband or wife and children, or descendants of such, half to surviving husband or wife, other half to children, or their descendants. 2. If no descendants, three-fourths to surviving husband or wife, and one-fourth to intestate's father and mother, or survivor of them. 3. If estate does not exceed $10,000, and there is a husband or wife, but no child nor descendant of such, whole to husband or wife.

British Columbia.—Widow entitled to dower as at common law. Estate of intestate decedent descends: 1. To lineal descendants. 2. To father. 3. To mother. 4. To collateral relatives.

Manitoba.—No dower. Estate of intestate decedent descends: 1. If widow and child or children, one-third to widow, two-thirds to child or children. 2. If no issue, whole to widow. 3. If no widow, whole to father. 4. If child or children and no widow, whole to child or children. Half-blood shares equally with whole-blood. 5. If no widow, child, or lineal descendants of such, whole to father. 6. If no father, equally to mother, brothers and sisters of equal degree.

New Brunswick.—Widow entitled to dower. Estate of intestate descends: 1. Equally to children and their legal representatives. 2. If no children, to next of kindred and their representatives, it being held that father and mother are next of kin, in preference to brothers and sisters. 3. Personalty goes, one-third to widow, remainder equally to children and their representatives. If no children, one moiety to widow, the other to next of kin of same degree; but no representation among collaterals after brothers and sisters. If no widow, all to children equally; and if no children, to next of kin in equal degree.

Ontario.—Dower and courtesy as at common law. Estate of intestate descends: 1. If widow and children, one-third to widow, remainder equally to children, or their descendants. 2. If widow and no children, half to wife, remainder to next of kin in equal degree. 3. If only children or their representatives, all to them, representatives taking *per stirpes*. 4. If husband and child, one-third to husband, two-thirds to child. 5. If husband only, half to him, other half as if he had previously died. 6. If father, mother, brothers and sisters, equally to all, and excluding grandfather and grandmother.

Quebec.—Both legal and conventional dower exists. Descent is: 1. To children. 2. If no issue, descendants take half, and their brothers and sisters the other half. 3. Husband and wife do not inherit from each other, till beyond the twelfth degree of relatives.

Nova Scotia.—Realty descends equally to children and their descendants. If no issue, half to father and half to widow in lieu of dower. If no father or issue, half to widow and half to mother, brothers and sisters and children of such by representation. If no widow, whole to mother, brothers and sisters and their children. If none such, to next of kin. Half-blood inherits equally with whole-blood. Widow takes one-third of personalty; balance distributed to others the same as realty. If no widow, others get all of personalty. Posthumous children inherit. Widow's dower is a third interest in husband's realty.

Northwest Territory.—No dower. Realty and personalty descend alike. 1. If intestate leave widow, and issue or descendant of such, widow takes a third, balance to issue equally; if no issue, she takes half, the remaining half to intestate's father. 2. If no widow nor issue, all to father. 3. If no father, to mother, brothers and sisters of intestate in equal parts, subject to widow's right to a half, as above.

Justices of the Peace.

HISTORY, POWERS AND DUTIES.

Of Justices.—Much ancient and interesting history surrounds the title "Justice of the Peace;" and the function of the office, while for the most part experiencing little real change for centuries, has found administration under different titular names, though not widely variant in meaning. The title "Justice of the Peace" is of great antiquity. Before the time of Edward III. the title was "Conservator of the Peace," but by a law of that reign they were given the power to try felonies, after which they acquired the more honorable appellation of "Justices;" not in the abstract sense of "Judge," or of general "judicial officer," but as magistrate of a local court of limited jurisdiction, and one not of record. "Justices of the Peace" constituted the minor judiciary of England by special commission under the great seal to keep the peace in the county for which they were appointed. Said Lord Coke; "The whole Christian world had not the like office as Justice of the Peace, if duly executed."

The Magistrate.—With but little, if any, change in the function of the office, Justices of the Peace have, in many places, and under certain regulations of the minor judiciary, come to be designated as "Magistrates." When the word "Magistrate" is used without qualification, in almost any State of the United States it implies a minor local justice, or Justice of the Peace; and even with such qualification as *Police* Magistrate and *Committing* Magistrate, as in many of our cities; or *District* Magistrate, as in India; or *Stipendiary* Magistrate, as in England; its meaning and function are not radically changed. Of course this limited use of the word "Magistrate" is outside of that general, comprehensive use, as when we speak of presidents, governors, mayors, prefects, etc., as chief magistrates of nations, States or cities.

The Alderman.—The good old Saxon word Alderman (elderman) originally implied a chieftain, lord or earl. It afterwards came to signify the chief magistrate of a territorial district, as of a county or province, and also the chief officer of a guild, and was, therefore, suggestive of a function quite analogous to Justice of the Peace, or Magistrate. But this good old word deserted in a measure its primitive and rural significance, and found a welcome in the cities. In fact, it became, in the course of time, and especially in its transit to America, almost a purely urban or municipal word. In the constitution of Pennsylvania "Justices and Aldermen" are provided for, and in the act of assembly prescribing for the election of such "Justices and Aldermen," townships and boroughs shall elect *Justices*, but "for each ward in a city shall be elected two *Aldermen*." This was a distinction in title with scarcely any difference of function. In

New York the word Alderman denoted a great broadening and radical change of function. There an Alderman became a member of the municipal legislative body, though still retaining certain judicial functions. And more than this, there as well as elsewhere, where the municipal legislative body consisted of two branches, the Board of Aldermen constituted the upper branch. This blending of function ceased, in a measure, to be popular, and aldermanic governing bodies have undergone radical changes, or been abolished. Even in Philadelphia, where an Alderman was but little else than a Justice, the name gave way, under the provisions of the constitution of 1874, to "Magistrate," or "Police Magistrate," with function almost identical with that of the former Alderman.

The Esquire.—Esquire was an old English title of dignity, office or courtesy, meaning one entitled to wear a shield, and next in rank to a knight. Courtesy extended its use to officers of the royal courts, Sheriffs, Justices of the Peace, and often to literary and professional men. In the United States the title, in its original abbreviated form of Esq., seems to have been largely appropriated by lawyers, but Justices of the Peace have been scarcely less tenacious of it under the shortened form of "Squire."

Power and Duty of Justices.—After this brief review of titles and functions, it is easy to see how comprehensive is the title "Justice," or "Justice of the Peace," and how completely it suggests the function of one of the most ancient and universally recognized of minor civic officials. The office exists in some form or other, or its functions and powers are recognized under certain conditions, in every State and Territory of the United States. By whatever title known, this official is either elective by the people, or appointive by governors or courts, and his duties, powers and, to a great extent, his practice, are prescribed by statutes of the respective States. He is expected to be a man of probity and judicial turn. He holds office under a commission. He is, as a rule, authorized to use a seal, though, owing to the expense of this, the primitive and convenient use of a scroll is accepted as a substitute.

A Judicial Office.—The office is essentially a minor one, an adjunct of the county and State judicial system, a ramification, as it were, of justice, in its most popular, convenient and acceptable form, to the remotest corners of population. It is an office presumably always open, especially in rural sections, or except where the functions of justices are embodied in district, aldermanic or magistrate courts of cities or of prescribed and thickly populated sections.

Jurisdiction.—The jurisdiction of Justices and of Justices' Courts in the respective States and Territories is regulated by statute, but is so phenomenally uniform as to have almost the sanction of a common law prescription. Thus in civil suits they either have sole jurisdiction where the amounts involved are small, seldom exceeding $300, and more rarely $500, or else concurrent jurisdiction with the higher courts for like amounts. But such jurisdiction seldom embraces cases which involve questions relating to land titles.

Justices are generally given jurisdiction in actions of trespass, and of trover and conversion, and in cases of rent collections, and distraint, subject to statutory limitation as to the amount. Judgments rendered by Justices are universally subject to appeal to higher tribunals, except where the amount is too trifling to warrant further suit. So the superior courts may issue writs of certiorari to Justices compelling them to send up certified records of their proceedings for review and correction. When there is no appeal, execution issues upon the judgment of a Justice, and levy and sale are had through a constable, the procedure being analogous to that in the higher courts through their sheriffs. Certified copies of judgments before Justices may be filed in the superior courts, where they become liens on real estate as other judgments rendered in said courts, and transcripts of such judgments may be filed in the various courts throughout a State.

Justices may administer oaths, take depositions and acknowledgments, administer the marriage ceremony; but generally their acknowledgments, when for use outside of their own State, and when unaccompanied by a regularly engraved seal, must be attested by a court of record, having a seal. One of the most important of the primitive endowments of the Justice of the Peace was his jurisdiction in criminal affairs, and this almost universally maintains in the United States. He may issue attachments, capiases and warrants, and after arrest may hear, exact bail, and bind over for appearance at court, where the offence is a bailable one.

Landlord and Tenant.

LEASES AND HOW TERMINATED IN ALL THE STATES.

For nature, form and legal effects of leases see *ante*. But the relation of landlord and tenant constitutes such an every-day and familiar part of business, and is varied so much by local customs and statutes, especially as to the termination of leases, that it becomes proper to indicate here for the use of business men and lawyers the laws and usages of the respective States more in detail. For a standard form of notice by a landlord to terminate a lease see Pennsylvania, Oklahoma, Connecticut, New York, District of Columbia, Indiana, etc., below.

Alabama.—If lease is for specified term, landlord cannot terminate it till end of term, except for violation by tenant of one or more of its covenants. Lease of land for more than a year must be in writing. If tenant does not quit at end of term, or is permitted to occupy by sufferance after term ends, without a new contract, landlord may, on six days' notice, institute proceeding to evict. If successful, the constable puts him in possession under a writ of restitution. Holding-over tenants, after possession is demanded, are liable for double rent.

Arizona.—Whether for non-payment of rent for five days, or for any other violation of covenants by tenant, landlord may take possession of premises without formal demand, which shall be tried, without notice, before any Justice of the Peace in not less than five nor more than thirty days. In tenancy from year to year tenancy terminates at the end of each year, unless written permission is given to remain. Thirty days' notice is required to terminate a lease from month to month. When tenancy is for a definite period fixed in the lease, tenant is bound to surrender possession at end of term, and no notice to quit is necessary; but, as a rule, ten days' notice is given. No particular form of notice required, but it should be in writing, plain, and contain a description of the property.

Arkansas.—Where the relation of landlord and tenant exists, either by written lease to expire at a certain date, or tenancy by the month, etc., if tenant refuse to surrender possession at the end of his term, or to pay rent when the renting is by the month, or at will, or by sufferance, the landlord may bring action in unlawful detainer, after three days' notice to quit. Tenant then has five days in which to give bond and retain possession till case is tried. If no bond is given in five days, the officer ejects tenant and puts landlord in possession. The following form of notice accords with the statutes:

Little Rock, Ark., ——, 190—.

To John Doe:

You are hereby notified that I demand that you quit and deliver to me, or to my agent, John Smith, on or before the —— day of ——, 190—, the possession of the house and premises No. —— Arch Street, situated in Block —— in Little Rock, Arkansas.

RICHARD ROE,
by John Smith, his agent.

California.—Lease of property other than lodging or dwelling house, where there is no other usage, presumed to be for one year. Lease of lodging or dwelling houses, presumed to be for such length of time as parties agree upon to pay and receive rent. If monthly, then the lease is for a month. If no time be fixed for payment of rent, the lease is monthly. If tenant remains beyond term, and landlord accepts rent, the term is renewed, for the same time and terms, not exceeding one month if the term is monthly, nor in any case exceeding one year. Terms of leases from month to month may be changed by the landlord on fifteen days' notice, to take effect at the end of the month. If tenant continues to hold, it shall be on the conditions specified in the notice. Tenancy at will may be terminated by notice to remove within one month. Unlawful detainer by a tenant is where he continues to hold, without permission of the landlord, and after default of rent pursuant to agreement, and three days' notice in writing, requiring payment or possession. Such notice may be served at any time within one year after rent is due. In leases of agricultural lands, where tenant has held over for more than sixty days, he is entitled to hold for a full year. Assignment or subletting by a tenant contrary to lease covenants terminates a lease upon three days' notice. Notices to terminate may be served on the tenant personally, by leaving a copy at his house or place of business, by mail, or by affixing a copy on the premises.

Colorado.—Three days' notice is required to evict a tenant at will. No notice required if lease expires at a time certain. Three months' notice, if lease is from year to year. In all cases where repossession is sought for failure to pay rent, or other breach of covenant, landlord must give three days' notice, in the alternative. If the tenancy be for six months, one month's notice is required; if monthly, ten days' notice. No form of notice prescribed, but it must be in writing and specific as to dates, the landlord's intent and description of property.

Connecticut.—The following notice must be given ten days before a tenant can be compelled to leave:

I hereby give you notice that you are to quit possession of the —— now occupied by you on or before the (date 10 in the future).
I. B.

Above notice to be made in duplicate, and one served on the party.

Delaware.—Whether a tenant is occupying under a hold-over lease for one or more years, or from year to year, for less than a year, or at will, a landlord cannot terminate it without giving the tenant three months' notice in writing to remove: excepting where the lease is by the month or week, when a month's or week's notice is sufficient. No particular form of notice.

District of Columbia.—If the lease is not for a definite term, but the rent-day is fixed as monthly, landlord must give tenant thirty days' notice, such notice to end with a rent period. The same rule applies to tenants holding over. The usual form of notice is as follows:

As I desire to again have and possess premises, No. ——, you are hereby notified to quit and remove therefrom at the end of thirty days.

If the tenant does not move, proceedings may be had before a Justice of the Peace, by virtue of which, about fifteen days thereafter, removal may be enforced.

Florida.—Where tenancy is by the month, three days' notice is required before he can be evicted by legal proceedings. The statutes do not prescribe the length of notice required where the tenant is occupying under a lease from year to year, or is holding over, but probably one month's notice would be deemed sufficient. No particular form of notice prescribed.

Georgia.—Where tenant occupies premises from month to month without lease for a definite length of time, landlord must give tenant sixty days' notice to quit; tenant must give landlord thirty days' notice of his intention to vacate. No notice required by landlord to terminate a written lease to expire at a fixed time. This would apply to a lease from year to year. If a tenant holds premises under a lease for a year, and does not vacate at end of term, but continues to occupy without further agreement, he holds for the same period as the lease ran. Notice must be in writing, but no particular form required.

Idaho.—Wherever the right of re-entry is given to a landlord under the terms of a lease, such reentry may be made at any time after the right accrues upon three days' notice, as provided in the civil code. Thirty days' notice must be given in order to terminate a tenancy at will, and then three days in order to secure possession. No particular form of notice prescribed.

Illinois.—Sixty days' notice in writing required to terminate a lease from year to year. It may be given at any time within four months preceding the last sixty days of the term. If the tenancy be from month to month, or for any term less than a year, and the tenant hold over without special agreement, the landlord may maintain action in forcible detainer or ejectment upon thirty days' notice in writing to tenant. In all cases where tenancy is for a fixed period the tenant is bound to quit at expiration of the period, and no notice is necessary. The required form of notice is:

You are hereby notified that the lease of your premises terminates on the —— day of ——, 19—, and you are hereby notified to quit and deliver up possession of the same to me at that time.

Indiana.—If lease be for a certain and definite time, landlord need give no notice to terminate it. It expires at the end of the term, and tenant may be evicted without notice. Where a tenant is holding over under a lease for a definite term, he is in for a term equal to the original lease, and may be evicted at the end of the term without notice. Tenancies from year to year may be terminated by three months' notice given to tenant prior to expiration of the year; and when tenancies are by consent of the parties, express or implied, or from one period to another for less than three months' duration, a notice equal to the interval between such periods is sufficient. The statutory form of notice is:

To W. B.
You are hereby notified to deliver up to me, at the expiration of the current year of the tenancy, the possession of the following described premises, situate in —— County, and State of Indiana, to wit, ——, now held of me by you as tenant.
I. R.

Indian Territory.—To terminate a lease, all that is necessary, when tenant is one at will, or from month to month, is reasonable notice in writing to deliver up the premises by a certain day, or at the expiration of the month. Usually ten days' notice is given. Tenants by the year are given thirty days' notice.

Iowa.—For non-payment of rent landlord may always terminate a lease on three days' written notice. Tenants holding over become tenants at will, and do not hold under the provisions of the expired lease, unless it is so provided therein. Such tenant may be evicted upon three days' notice to quit, if served within thirty days after expiration of the lease; otherwise it requires a thirty days' notice to quit. If the tenancy be a farm property, the lease must terminate before March 1, otherwise the tenant can hold for another year. Notice must be in writing, but no particular form prescribed.

Kansas.—If a lease provides a date for ending a term, no notice to terminate is required. Three months' notice is required to terminate a lease from year to year. Hold-over leases, with consent of landlord, become leases from year to year. In farm leases, where tenant is holding from year to year, or for any indefinite term, a three months' notice should be given fixing the termination on the first of March. No particular form of notice is required, but simply to recite that

the undersigned, owner of the following described premises ——, hereby notifies you that your tenancy thereof is terminated, and will end on the —— day of ——, 19—.
(*Landlord's signature.*)

Kentucky.—No notice to terminate lease required where the term is certain, or notice to quit is dispensed with. If a tenant fails to quit after having been given notice; or if, when his term expires upon a date certain, he refuses to quit; or if, where the agreement was to dispense with notice, he refuses to quit when landlord demands possession, he shall pay double rent from the time he should have yielded possession. If tenancy be for a year or more, and to expire on a certain day, tenant must quit on that day, unless there be a new contract to remain. If tenant holds over without such contract, he acquires no right to remain within ninety days, and landlord may repossess without demand or notice, if he institute proceedings within that time. If landlord takes no steps to repossess within that time, tenant holds for a year; after which the above relation is repeated. If the lease is for less than a year, the above relation exists, except that tenant acquires no right within thirty days, and landlord must institute proceedings within that time. If he does not, no proceedings are allowed until after sixty days from end of the term. Thirty days' notice required to end all other kind of tenancies. No particular form of notice required.

Louisiana.—By act No. 52 of 1900, "When any person, having leased any house, store, or other building, or landed estate, for a term of one or more years, or by the month, or otherwise, either verbally or otherwise, shall be desirous, upon the termination of the lease, either by limitation or non-payment of the rent when due, or any other breach of the said lease, he shall demand and require in writing his tenant to remove from and leave the same, on allowing him ten days from the day such notice is delivered; and if the tenant shall refuse to comply therewith after expiration of such delay and to remove therefrom, it shall be lawful for such lessor to cause the tenant to be cited summarily by a rule to show cause, within two days after service of such rule, to appear before any court having competent jurisdiction, in order to be there condemned to deliver him the possession of the leased premises."

NOTICE TO TENANT.

State of Louisiana, Parish of Orleans, City of New Orleans.

New Orleans, La., ——, 19—.

M ——

Please Take Notice, That you are hereby required, within ten (10) days from the serving of this notice, to surrender and deliver me possession of the —— known as No. —— Street, in this City, which you now hold of me, as tenant under lease, pursuant to the provisions of the statute relating to the rights and duties of landlord and tenant. Act No. 52 of 1900.
(*Signature.*)

Maine.—At the end of the term of a written lease landlord may enter without notice and dispossess tenant; but must give thirty days' notice where tenant is one at will, holding without a written lease, said notice to expire on rent-day, when, within seven days after its expiration, landlord must bring suit for repossession by eviction.

Maryland.—In written leases the terms govern as to notice. In Baltimore, landlord must give ninety days' notice in order to terminate a lease from year to year, and tenant must give thirty days' notice. If the lease be for a month, or any less period than a year, and tenant continues to occupy after its expiration, he holds for the term of the expired lease, and landlord must give thirty days' notice to terminate. So, thirty days' notice is required to terminate a tenancy at will or sufferance. In estates from year to year, in the State, outside of Baltimore, both landlord and tenant must give six months' notice in writing. In estates by sufferance no notice is required. Estates at will require immediate notice. Such notice is sufficient as to form if it is in writing and makes the intention of either landlord or tenant plain. It must be properly served.

Massachusetts.—The termination of an existing lease is governed by its contents, except where there is breach of its covenants. If tenant is holding over, he is entitled to notice equal in length of time to the period between rent-days; but if rent be payable at periods of six months, he is entitled to three months' notice. The notice provides that tenant shall deliver possession at the end of the quarter, month or week of the tenancy, which shall begin next after the date of the notice. In case of breach of covenants—as failure to pay rent—fourteen days' notice is required. The usual procedure for obtaining possession is by writ of ejectment.

Michigan.—Tenancy at will or sufferance terminated by three months' notice: Provided, that where rent reserved in lease is payable at intervals of less than three months, notice equal to the time between payments is sufficient. If tenant is in default of rent, seven days' notice to quit is sufficient. In case of tenancy from year to year, notice given at any time terminates the lease at the expiration of a year from the date of such notice. A tenant holding or claiming possession adverse to landlord or owner is not entitled to notice. Hold-over lease may be a tenancy at will or sufferance. No particular kind of notice required.

Minnesota.—If tenant is holding from year to year, under a lease originally for a year or term of years, the landlord, in order to terminate, must serve him with a written three months' notice in the clear before the end of the year. If tenant is holding from month to month, a thirty days' notice in the clear is required. A three months' notice is required to terminate a tenancy at will.

Mississippi.—Where tenant is holding under a term which expires at a fixed date, landlord need give no notice to terminate lease. Where tenant is holding over under an expired lease, sixty days' notice would be required to terminate a lease, and also a year to year lease; thirty days' notice, if lease be for half or third of a year; one week's notice, if lease be for a month or week. Notice must be in writing. No particular form prescribed.

Missouri.—All leases, estates, interest in freehold or term of years, and not in writing, have the effect and force of leases, and stand at will only. No lease, estate, interest, either of freehold or term of years, or any uncertain interest of, in, to or out of any lands, tenements or hereditaments, can be assigned unless in writing. The rule is that notices to terminate leases are subject to their terms. There is no particular form of notice.

Montana.—A landlord may terminate an estate at will by giving at least one month's notice, after which, and upon three days' notice, he may maintain an action of ejectment or unlawful detainer. An estate at will may terminate without notice, on conditions broken. Covenants broken terminate a lease, and landlord is entitled to possession on three days' notice. If tenant holds over after expiration of his term, he is liable to landlord for treble rent during time of such holding over. Notice should be in writing, but no particular form prescribed.

Nebraska.—Notice by landlord to tenant to terminate a lease for an uncertain period must be six months in length, as at common law. Same as to tenancy from year to year. Where the term is for one year or other certain period no notice to quit is necessary, and if tenant holds over he may be summarily ejected under proceedings in forcible entry and detainer, begun after three days' notice. If tenancy be from month to month, or week to week, notice must correspond with the period named. No prescribed form of notice, but it should specify the lease dates and fully describe the property.

Nevada.—Where the lease is from year to year, and the tenant is holding over, not more than ten days' notice is necessary to deliver possession. Only three days' notice required when rents remain unpaid. The custom is to give ten days' notice when termination of a lease is desired.

New Hampshire.—If the lease be written, parties thereto are bound by its terms. Where written lease has been given and parties are holding over by mutual consent on the same terms by a verbal agreement or understanding, there would be no lease under the law, and any such tenancy may be terminated on thirty days' notice. Such notice must be in writing, must particularly state the date of its expiration, and in other respects be certain and definite in its terms. All tenancies are at will, and the rent payable on demand, unless a different contract is shown. The landlord may terminate such tenancies, or those at sufferance, by giving the above notice. Seven days' notice must be given when tenant neglects or refuses to pay rent upon demand. If rent be payable oftener than once in three months, and whether due or not, thirty days' notice is sufficient, and three months' notice is sufficient in all cases.

New Jersey.—If in the lease no term is agreed upon, and the rent is paid monthly, the tenant is entitled to three months' notice prior to the first day of April succeeding his entry upon the premises. Same notice is required to terminate a lease from year to year. If no notice has been served, and tenant holds over and pays rent, the lease holds good for another year. For violation of covenants landlord may begin eviction proceedings on three days' notice.

New Mexico.—The relations of landlord and tenant are as at common law. Thirty days' notice to quit is usual in leases from month to month.

New York.—If a tenant take possession under a lease which is silent as to the length of the term, but fixes terms of payment at definite periods—as monthly, in advance, or at end of the month, or quarterly—a tenancy at will or by sufferance is created, and either party desiring to terminate it must give thirty days' notice, and the date of termination mentioned in the notice must be at the end of such time as is fixed in the lease for payment of rent—month, quarter, etc. But where the lease is for a fixed term—month, quarter or year—and tenant holds over, such holding over implies a quasi consent on the part of the landlord; and the lease is construed as operative for a like term. In such case, and in every other, where the term is fixed, no notice is required to terminate. On the day of expiration of the term a summary precept to remove may issue, returnable forthwith; but if issued after the date of expiration, it cannot be returned in less than three days; and it can issue at any date unless from lapse of time or other circumstances a new lease has been created by implication. Leasing implication applies to the tenant also. If a tenant fails to pay rent on a stipulated day, he may be removed at any time thereafter by summary precept upon showing that personal demand had been made for the rent, or that he was given three days' notice "to pay rent or quit." No particular form of notice is required, but it should be in duplicate, so that a copy can be preserved as proof of service. The following form is in constant use:

To —— ——, Tenant.

Take Notice, That I hereby require you to remove from the house and premises now occupied by you, situate in the —— of ——, in the County of ——, N. Y., and described as follows: ——, on or before the —— day of ——, 19—.

Dated at ——, N. Y., the —— day of ——, 19—.

Yours, etc.,

—— ——,

Landlord.

North Carolina.—If the term of the lease in regard to the time thereof is fixed, then no notice is required to be given the tenant. If landlord allows tenant to hold over, and collects rent from him, then a tenancy from year to year is created, and a notice of one month must be given. No particular form of notice required, but it should be in writing.

North Dakota.—If tenant holds over, lease is renewed for same rent and time, not exceeding one year. So a lease for a term not specified is deemed to be renewed at the end of the term implied by law, unless one of the parties gives notice to the other of his intention to terminate the same at least as long before the expiration thereof as the term of the lease itself, not exceeding one month. Action for dispossession for non-payment of rent may be begun three days after rent is due, and three days' written notice to quit must be given. No prescribed form of notice required, but it should be plain, state the reason for landlord's action, be served by an adult, or officer, and supported by affidavit of service, or official return.

Ohio.—If the term of a lease is about to expire, and the landlord desires the premises, he must give at least three days' notice to tenant that he desires to get possession. Same notice is required where tenant is occupying under a hold-over lease, or a lease from year to year, unless there be a stipulated length of time of notice in the original lease. No prescribed form of notice.

Oklahoma.—Substantially there is no tenancy from year to year. Tenancy never becomes unlawful until after three days' notice to terminate. Wherever notice is required it must be in writing, and served on the tenant or some responsible party on the premises. It must contain the name and definite description of the property. In an action of forcible detainer the statutory words of a notice are: "For the possession of which action is about to be brought." Thirty days' notice is required to terminate a tenancy from month to month, and the same would be required to terminate a tenancy from year to year, if the same were recognized under the statutes. For shorter terms the notice is of the length of time of the term. Where the lease is for one year and the tenant holds over and pays rent, it is a lease for one additional year, and not from year to year, and requires no notice to terminate.

Oregon.—Where a landlord desires to terminate a lease because of any failure of the tenant to observe his covenants, he must give tenant ten days' notice. If there is no breach of duty on the part of the tenant, but the landlord simply desires to repossess, the length of time of notice ought to be equal to the time between the regular rent payments. No form of notice is prescribed, but it must be in writing.

Pennsylvania.—A lease should be in writing; but an unwritten lease may have the effect of a lease from year to year, not, however, to exceed the term of three years. Leases creating estates for years and at will are recognized as at common law. A tenancy from year to year is where the landlord demises to the tenant to hold from year to year, or as long as the respective parties please. A tenancy from quarter to quarter, from month to month, etc., is when the tenancy is for a short period, as for a quarter, month, or week; and if the tenant hold over, there is, as in the case of a tenancy from year to year, a tenancy from quarter to quarter, month to month, or week to week, established. Where no term is stated, the lease is from year to year. Where a lease is for a definite period and the tenant holds over, the landlord may treat him as a tenant by sufferance, and turn him out without three months' notice previous to the end of the term; but the landlord may elect to treat his tenant as one from year to year. Tenant by the month may terminate his lease at the end of a month. A lease for one year, say from April 1, expires on March 31 of the next year. A tenant is bound for the rent, even though he assigns his lease. Where there is a covenant for a re-entry on failure of tenant to pay rent, there need be no formal demand of the amount due. After service of landlord's warrant to distrain for rent, tenant has five days in which to replevy. There must be six days' public notice of sale of distrained goods given. If tenant has no goods subject to distraint, landlord must give fifteen days' notice to quit, if between April and September, and thirty days, if between September and April. The act of March 21, 1772, authorizes a procedure similar to ejectment, but speedier, to enable a landlord to recover possession at the end of a lease. Under it landlord must give notice to quit three months before his application for the remedy. The act of December 14, 1863, passed for a like purpose, requires three months' notice before the end of the term. Such notices need not be in writing unless required in the lease. As at common law, where the term of a lease is of absolutely certain duration, the landlord need give no notice to end it. He may even enter the demised premises without notice to quit, and remove the tenant's goods, provided he do no public or private wrong. But when the term is of uncertain duration, as in case of a tenancy from year to year, he must give three months' notice. And if the tenancy be from quarter to quarter, month to month, or week to week, his notice to terminate must be a quarter, a month, or a week in length. While the law specifies no particular form of notice, it should be in writing, properly served, and something like the following, which has been approved by immemorial usage:

THREE MONTHS' NOTICE TO TENANT TO QUIT AT END OF TERM.

To —— ——:

Being in possession of certain premises, with appurtenances, situate ——, which you now hold as tenant under —— (date of lease), I hereby give you notice that it is my desire to have again and repossess the same, at the expiration of your lease, to wit, on the —— day of ——, 19—. *(Landlord's signature.)*

NOTICE TO QUIT WHEN LEASE HAS EXPIRED.

To —— ——:

Being desirous to have again and repossess the premises situate ——, which you hold as my tenant, and as your term for said premises expired, to wit, on the —— day of ——, 19—, I hereby give you notice to remove from and leave the same.

C. D.

Rhode Island.—The time agreed upon in a lease shall be the time of the termination thereof for all purposes. If there be no time fixed, it is a letting from year to year. Tenants by parol of land, building, or parts of buildings from year to year shall quit at the end of the year upon notice in writing from the landlord given at least three months prior to the expiration of the occupation year. Notice must be in writing, but no particular form required.

South Carolina.—Written leases are interpreted by their own terms. Others are presumed to be for one year, January 1 to December 31, and full three months' notice must be given to terminate them. The form of notice depends on the facts of each case. Tenants may be ejected for non-payment of rent or unlawfully holding over.

South Dakota.—Length of notice to terminate depends on the character of the lease. If a tenant holds over, and landlord accepts rent, the lease is renewed for another term, not, however, exceeding one year. If tenant fails to pay rent, or otherwise breaks covenants, landlord may take action to evict upon three days' notice in writing to tenant. If a lease is from month to month or a tenancy at will, landlord must give thirty days' notice in writing to quit; but if the lease is from week to week, or fortnight to fortnight, notice only equal to the term is required. No form of notice provided for, but it should be plain and to the point.

Tennessee.—No notice of any kind is necessary by a landlord to get possession of premises held by a tenant at the expiration of the lease, either to terminate the lease or to entitle the landlord to maintain a suit for possession. Of course, this can be varied by contract so that the landlord will be compelled to give the contract notice in order to terminate a lease.

Texas.—No particular time fixed for notice to terminate a lease. Any notice in writing before or after end of term is sufficient. Even the notice to terminate need not be in writing, but must be written when before suit for forcible entry or detainer. No particular form of notice required. If lease provides for notice, the terms of lease govern. And yet it is customary in the State for landlords to give thirty to sixty days' notice.

Utah.—When the lease is for a specified term, whether written or parol, the tenancy terminates without notice at the expiration of such term. If the lease be for an indefinite time, with monthly or periodic rent reserved, the tenant continues in possession, after the end of any such, or month, or period, in all cases where the landlord shall not have, fifteen days prior to the end of such month or period, served him with notice to quit; ten days notice required to terminate a tenancy at will. Three days' notice, when rent is overdue, to pay or surrender premises. Same notice when tenant has violated other covenants. In case of agricultural lands, where tenant holds over for sixty days after expiration of term, he is entitled to hold for balance of the year. No particular form of notice required, but it should be in writing, and served by copy personally on tenant, or some responsible person, at his place of abode.

Vermont.—Where the tenancy is from year to year it requires six months' notice to terminate it, so as to entitle the lessor to possession and the lessee to exemption from payment of rent. If the tenancy be at will, only reasonable notice is required—say thirty days. Notice must be in writing, and in duplicate, the landlord retaining a copy. No particular form required.

Virginia.—Tenancy from year to year may be terminated by either party by three months' notice in writing, prior to the end of any year, if it be of land within a city or town, or six months' notice if it be without. When such notice is by the landlord, it may be served on the tenant or any one holding under him; when by the tenant, upon the landlord, or his agent, according to common law. If the lease provides that no notice shall be given, none is required; and no notice is required if the lease is to end at a certain time. There is no prescribed form of notice.

Washington.—Tenancies from year to year abolished except when created by express written contract. Tenant holding over after expiration of term; or, if the term be indefinite with monthly or other periodic rent-days, he holds over after the end of any such month or period, and the landlord shall have served him with twenty days' written notice to quit, prior to the end of such month or period; or, if he holds over after receiving three days' notice in writing to quit or pay rent due; or, if he holds over after ten days' notice in writing to quit for violation of other covenants; or, if he holds over after three days' notice in writing to quit for permitting waste or violating other implied covenants; such tenant is guilty of unlawful detainer, and may be ousted by procedure in forcible entry and detainer.

West Virginia.—Three months' notice in writing required to terminate a tenancy from year to year, except where the lease specifies that no notice is to be given. Notice is not necessary when the term is to end at a certain time. If tenant is in default of rent, and has left the premises, without goods sufficient to satisfy the rent by distraint, landlord may post notice in writing requiring payment within one month. If same is not paid in that time, he may enter and repossess the premises, and is entitled to collect rent to that date.

Wisconsin.—No notice to tenant required when lease expires at a fixed date, unless lease provides for notice. Tenancy at will or by sufferance may be terminated upon one month's notice to quit; but when rent is payable at periods of less than a month, such notice is sufficient if equal to the interval between the times of payment. Where tenant neglects or refuses to pay rent, landlord must give fourteen days' notice in order to terminate a tenancy at will. If tenant holds over without permission after default in payment of rent, or after any other breach of covenant, three days' notice in writing is required, either to pay rent, or remedy breach, or yield possession. Such notice must be served same as a summons. No particular form of notice required.

Wyoming.—After the expiration of a lease, the tenant becomes a tenant at sufferance, as at common law, which required in England six months' notice to terminate a tenancy from year to year, and a quarter, month or week's notice to terminate leases of like length. Three days' notice is necessary before beginning action for forcible entry and detainer.

CANADA.

Ontario Province.—If tenancy is monthly, landlord must give a month's notice to tenant to quit; if tenancy is yearly, then half a year's notice is necessary. A lease for a specific term terminates itself, and no notice is necessary; but if landlord accepts rent after termination of a lease, that creates a new tenancy, whose terms as to time and otherwise will depend on the special circumstances of the case. Ordinarily, on an overholding on a yearly lease, a new tenancy from year to year is presumed, and a half year's notice would be required. No special form of notice is necessary, though it is preferable to have one drawn by a lawyer to insure its sufficiency.

Manitoba.—Aside from a few statutory provisions, the law relating to landlord and tenant is the English common law. A month's notice is required to terminate a monthly lease, and six months' to terminate a yearly lease. If a tenant is holding over under an expired lease, notice must conform to the terms of that lease. Proceedings for eviction generally embody a notice pursuant to the terms of the lease, and application to the Queen's Bench for eviction. No particular form of notice is required, provided it is definite and certain.

New Brunswick.—To terminate a yearly tenancy, landlord must give three months' notice to tenant; if the tenancy be monthly, one month's notice. If tenant be holding over from year to year, a three months' notice is required. No particular form of notice prescribed.

Northwest Territories.—Six months' notice is required to terminate a lease where there is no provision in the lease itself. This length of notice is rather by custom than a requisite of strict law. Same length of time of notice required to terminate a hold-over lease. This also applies to a tenancy from year to year. No particular form of notice required, provided it demands the giving up of all demised premises at the proper time. Ejectment rarely resorted to, the usual procedure being by action in court to recover land.

Quebec.—If a lease is for no special time, it is presumed to be annual, if the rent is so much per annum; monthly if so much per month, and so on. Such leases may be terminated by giving the notice of the term, whatever it may be. If the tenant occupies by sufferance, with no contract as to rent or time, it is held in the case of houses to be an annual lease, expiring on May 1, and landlord may prove the value of the occupation. Leases of houses are supposed to expire on May 1, and where such leases are written notice must be given by either party on or before the first day of February of their intention to discontinue the same, otherwise there is a tacit renewal. Leases for a specified time terminate of their own accord on the date specified; but if the tenant remain over for eight days, the lease is renewed for another period. In this case a three months' notice to terminate must be given by either party. If a written lease be for a month, a month's notice to terminate is required. No special form of notice required, provided the intention be made clearly known.

British Columbia.—All leases in writing should contain provision as to notice to terminate. If they do not, they end of themselves at the end of the term mentioned. A holdover tenant is one at will, and can be ejected by legal process after demand for possession. Three months' notice is required to terminate a lease from year to year, unless some other agreement exists. No particular form of notice required, but it must be certain and definite.

Nova Scotia.—The relations of landlord and tenant are for the most part subject to common law regulations.

How to Become a Citizen of the United States.

LAWS OF NATURALIZATION.

Statutes.—The Revised Statutes of the United States prescribe the manner in which an alien may be admitted to citizenship.

Declaration of Intention.—At least two years before his admission he must declare upon oath before a Circuit or District Court of the United States, or a District or Supreme Court of the Territories, or a Court of Record of any of the States having common law jurisdiction and a seal and clerk, that it is his *bona fide* intention to become a citizen of the United States, and to renounce forever all allegiance and fidelity to any foreign prince or State, and particularly to the one of which he may be at the time a subject.

Form of Oath of Admission.—The form of the oath he shall make before one of the above-named courts, at the time he seeks admission to citizenship, must be "that he will support the Constitution of the United States, and that he absolutely and entirely renounces and abjures all allegiance and fidelity to every foreign prince, potentate, State or sovereignty, and particularly, by name, to the prince, potentate, State or sovereignty of which he was before a citizen or subject." These proceedings must be made a matter of court record.

Admission to Citizenship.—If it shall appear to the satisfaction of the court that the applicant alien has made his declaration of intentions two years before, and has resided five continuous years within the United States, and at least one year within the State or Territory in which the court is, and that during that time he has behaved as a man of good moral character, attached to the principles of the Constitution of the United States, and well disposed to the good order and happiness of the same, the court will admit him to citizenship, upon subscription to the above form of oath and renunciation of any title of nobility he may bear.

Alien Soldiers.—Any alien over twenty-one years of age, who has served in the army of the United States and been honorably discharged therefrom, and who has been a resident in the United States for at least one year prior to his application for citizenship, and who bears a good moral character, may become a citizen upon his petition without previous declaration of intention.

Persons Under Twenty-one.—If an alien minor has resided in the United States three years before reaching the age of twenty-one, and continuously thereafter, for a period of five years in all, he may be admitted to citizenship by declaring on oath and proving to the court that for two years preceding it had been his *bona fide* intention to become a citizen.

Children.—A child of a naturalized person, if under twenty-one years of age when the father was naturalized, and if living in the United States, shall be considered a citizen thereof.

Birth Abroad.—A child of a citizen of the United States, though born abroad, is a citizen thereof.

Chinese.—Naturalization is prohibited to a Chinaman.

Protection.—All naturalized citizens while in foreign countries are entitled to the same protection to person and property as if a native born citizen.

Voting Right.—Naturalization is a Federal right, but the franchise or right to vote comes from the State. Many States, by statute, permit aliens to vote. The Hawaiians have been declared citizens of the United States; but not as yet the inhabitants of Porto Rico and the Philippines.

Notaries Public.

HISTORY, POWERS AND DUTIES.

Of Notaries Public.—In Roman law the notary (*notarius*) was the person—generally a slave or freedman—who took notes of judicial proceedings in shorthand or cipher. He corresponded to a modern clerk of the court, or to a stenographer. By a singular transition and survival of titles, that of notary came, in the course of time, to be applied to the Roman official called tabellion, who drew up legal documents, and performed the general function now implied by the word scrivener. The tabellion, therefore, corresponds more nearly with the modern notary than the title *notarius.*

Both the name and function of notary found their most rapid development through the canon law, under which a notary became a person of wide importance. Indeed, it was a maxim of that law that the evidence of a notary was worth that of two unskilled witnesses. In most European countries he still holds something of his old position under the canon law. In France, for instance, a document attested by a notary is said to be "legalized," a term quite too strong to express the effect of such attestation in England, where the notary public, in spite of his name, is not recognized as a public official to the same extent as in some other countries.

Duties.—But in more modern times it is to the needs of commerce, banking, jurisprudence and general business that the notary owes his almost universal existence and the great convenience and importance of his function. Like that of justices, the notarial function, though ascertained and regulated by statute, varies but little, especially in the United States. In brief, it is to protest bills and notes, and certify the same, administer oaths, take depositions, acknowledgments of deeds and other instruments, and to authenticate the same by his official signature and seal. It will be seen that this function, as far as it goes, is almost identical with that of a justice.

How Created.—Notaries are, as a rule, created by commission, mostly, in this country, from governors of the States. They must have engraved seals of office, and give bond for good conduct. They are usually men of some business quality, as conveyancers, law students, and young practitioners, but bank presidents, directors and stockholders and persons exercising judicial office are generally, for evident reasons, not eligible to the office, at least, not preferred for it. Their terms of office are prescribed in their commissions, as well as the place, or places, where they are expected to reside and officiate.

Official Acts.—The rule is quite general, that the official acts, protests and attestations of notaries public, when certified in due form, under their hands and seals, in respect to the dishonor of all bills and promissory notes, and of notice to drawers, acceptors or endorsers thereof, may be received and read in evidence as proof of the facts therein in suits pending in courts of justice. But there are many exceptions to this rule throughout the States, where the notary's attestation, or official act, relates to other than strictly commercial paper. Then, some of the States accept such attestation or acknowledgment, when properly sealed, as sufficient to sustain evidence in court, the seal being presumed to be *prima facie* genuine. Other States require that the notary's seal shall be certified by a court of record. This is especially so in some of the older States, which make large use of Commissioners of Deeds for the acknowledgment of deeds and mortgages.

Jurisdiction.—Though a notary's commission may designate his residence, city or district, his jurisdiction extends throughout his State. An important function of a notary, especially in commercial and legal centres, is the taking of depositions. In this capacity he may act solely or simply as clerk for contending counsel, writing down faithfully the questions and answers, or seeing that they are so written. Banks, as a rule, select special notaries to make their protests and serve their notices. Notaries are paid by fees, which are regulated in many States by statute, and should be in all. No officials in the world are so general and so universally recognized as notaries public.

Partnership.

Partnership is a voluntary contract between two or more persons for joining together their money, goods, labor and skill, or any and all of them, in some lawful business, with an understanding, express or implied, that there shall be a communion of profit and loss between them.

The formation of a contract of partnership does not require any special formality. Such a contract may be made orally.

Proof of Existence.—Whether a partnership exists or not in a particular case is not a mere question of fact, but one of mixed law and fact. It is, nevertheless, generally to be decided by a jury. The existence of a partnership may be proved by showing (1) A distinct agreement for a partnership; or (2) An agreement to share profit *and* loss; either of these will be conclusive; or (3) An agreement to share profits—which will be strong evidence of a partnership; or (4) Circumstances sufficient to establish a *quasi*-partnership which, being proved, is held to be *prima facie* evidence of a real partnership.

Where there is no written agreement, the evidence generally relied upon to prove a partnership is the conduct of the parties, the mode in which they have dealt with each other, and the mode in which each has, with the knowledge of the others, dealt with other persons. This can be shown by the books of account, by the testimony of clerks, agents and other persons, by letters and admissions, and, in short, by any of the modes in which facts can be established.

Kinds.—Partnerships may be general, special and limited. In the general partnership the parties are on the same basis of responsibility. Partnerships of a special nature absolve one or more of the parties from full participation and responsibility. Thus there may be a silent partner who contributes only capital, who does not assume responsibility beyond that capital, and who participates in the profits in some specially mentioned way. Limited partnerships are those in which the parties agree to contribute specific amounts of capital, with the understanding that none of them shall be responsible in the event of losses for more than the capital contributed. They are generally the creatures of statute law.

Dissolution.—Partnerships may be dissolved by expiration of the stipulated time; by the mutual consent of the parties; by the act of God, as the death of one of the parties; by act of law, as by bankruptcy; by extinction of the subject matter; by the breaking out of war.

The power of the partners subsists for many purposes after dissolution; among these are:

1. The completion of all the unfinished engagements of the partnership.

2. The conversion of all the property, means, and assets of the partnership existing at the time of the dissolution, for the benefit of those who were partners, according to their respective shares.

3. The application of partnership funds to the payment of the partnership debts.

NOTICE OF DISSOLUTION.

The partnership heretofore existing under the name of B. & D. wherein A. B., of ——, —— county, State of ——, and C. D., of ——, —— county, State of ——, were general partners, and E. F., of ——, —— county, State of ——, and G. H., of ——, —— county, State of ——, were special partners, is, this —— day of ——, A. D. ——, dissolved by mutual consent.

A. B.
C. D.
E. F.
G. H.

The affairs of the firm will be adjusted by C. D., at ——, etc.

Such notices are generally required to be published for a certain length of time in the newspaper of the locality.

PARTNERSHIP CONTRACT OR ARTICLES.

This agreement, etc., witnesseth:

That said O. S. has for some time past been engaged in, and is about to retire from, the business (*or* trade) of ——, at ——, in ——.

That said R. P. shall continue said business (*or* trade) under the covenants, restrictions, and agreements hereinafter contained.

That an inventory and appraisment has been taken and made of the stock, the value of which is —— dollars, and fixtures, the value of which is —— dollars, and entered in two receipt books, and is subscribed by both of said parties, each of whom retains custody of one of said books.

That said R. P. shall during the term of five years (computed from the date of this agreement), if said parties shall live so long, trade with said stock, manage and improve the same, in such manner, however, as said O. S. shall direct.

And the said R. P. in consideration of the premises, shall apply himself diligently to the care and management of said stock, trade and business, according to his best skill, abilities, and discretion, and apply and dispose of the money which shall arise from the sale thereof, and all the profits of his trade and dealings, to answer and discharge the trusts hereby reposed in him.

That said R. P. shall make complete and perfect entries in the proper books of account of all good sold, all moneys paid and received by him, and permit the same to be inspected by said O. S. at all times.

That on the —— day of ——, of each year during said term, or oftener if required by said O. S., said R. P. shall take a full account of said stock then remaining in trade, and of the profits and sales, and deliver the same to said O. S., and make a true manifest of the condition thereof.

That he will not, during said term of five years, buy, sell, or in any manner deal or trade in his own name or that of any person save the said O. S., nor do any act whatsoever whereby said stock or any part thereof shall suffer, or become liable to attachment or execution.

That at the expiration of said term of five years said R. P. shall deliver up to said O. S. the stock then remaining, for his own use and benefit, to the value of —— dollars; losses by bad debts, decay of goods, and other inevitable casualties excepted.

In witness whereof, etc.

Patent Office and Patents.

To Whom Issued.—Patents are issued in the name of the United States, and under the seal of the Patent Office at Washington, to any person who has invented or discovered any new and useful art, machine, manufacture, or any composition of matter or any new and useful improvement thereof, not known or before used in this country, and not patented or described in any publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application, and not in public use or on sale in the United States for more than two years prior to his application, unless the same is proved to be abandoned.

Patent for Design.—A patent will also issue to any person who by his own industry, genius, efforts and expense, has invented and produced any new and original design for a manufacture, bust, statue, alto-relievo or bas-relief; or any new and original design for the printing of woolen, silk, cotton or other fabrics; or any new and original impression, ornament, pattern, print, picture to be printed, painted, cast, or otherwise to be placed or worked into any manufacture; or any new and useful configuration of any article of manufacture, they not having before been patented or described in print.

Time to Run.—Every patent authorizes the patentee, his heir or assigns, to use his patent for a term of seventeen years, during which time it is his exclusive property, to do with as he will. He may make, use and sell his invention anywhere in the United States.

Foreign Patent.—If a man apply for a patent, honestly believing he is an original inventor, a patent will not be refused on account of the same invention or discovery having been known or used in any foreign country before his invention or discovery, provided it had not before been patented or described in any printed publication.

Joint Patent.—Joint inventors can get a joint patent. Joint inventors cannot claim separately. But the joint invention must be as to essentials of the invention. If one man furnishes money and another invents or discovers, they cannot become joint inventors, though they may become joint patentees.

Estoppel.—If any one has applied for a patent in a foreign country, he must, if he desires to patent his invention in this country, file his application within seven months of the time he filed his application in that foreign country.

Applications.—Application for a patent must be made in writing to the Commissioner of Patents. The office will supply an applicant with the necessary forms.

Description.—The applicant must file in the Patent Office a full description of his invention or discovery, and in such exact terms as to enable any one skilled in what it appertains to, to make and use it. The principle as well as the mechanism must be described. Such description, explanation and claim, are called his specifications, and they must be signed and attested by two witnesses.

Drawings.—Where the case will permit, the applicant must furnish a drawing of the required size of his invention. It must also be signed and attested by two witnesses.

Models.—Where models are necessary, they must be furnished by the applicant, and be of convenient size to illustrate fully the principle and mechanism of his invention.

Oath.—The applicant must make oath that he believes himself to be an original inventor or discoverer, and does not know that his invention was ever known or used before.

Granting the Patent.—On the filing of a proper application, payment of the necessary fees, and sanction of the originality of the invention, a patent will issue.

Assignment.—A patentee may assign his patent, or an interest therein; or may convey an exclusive right under his patent to the whole or any specified part of the United States.

Reissue.—If error in the specification has been found to exist, upon its correction the patent will be reissued.

Caveat.—A caveat or warning filed in the Patent Office will protect an inventor while he is perfecting his invention, provided the period does not exceed one year.

Fees.—These are payable in advance. Application fee, $15; patent, $20; design, $10, $15, $30, according to time; caveat, $10; application for reissue, $30; disclaimer, $10; certified copies, ten cents per 100 words, and twenty-five cents for certificates; recording assignments, $1, $2 and $3, according to length. Fee for examining and registering a trade-mark, $25.

Patents Issued.—From 1837 to 1900, the Patent Office issued 675,561 patents, the number for 1900 being 26,499.

Principles of Law, Civil and Criminal.

TERMS AND DEFINITIONS.

Law is a rule of civil conduct prescribed by the supreme power in a State. Long established custom has the force of a legal enactment. Arbitrary law is a rule established rather than a principle declared. The principle that an infant shall not be bound by its contract is not arbitrary; but the rule that the limit of infancy shall be twenty-one years is arbitrary. Municipal law is a system of law limited to any State, nation or community.

Positive law is the system established by a community in distinction from national law. Prospective law looks to a case that is to arise, and retrospective law looks backward to alter that which is past. The latter is called *ex post facto,* and is void if it impairs contracts or takes away vested rights. Penal law inflicts a penalty for its violation. A special law applies to private matters, and a general law applies to the public generally.

Admiralty.—Admiralty law relates to maritime affairs, civil and criminal. Admiralty jurisdiction is exercised by the United States Courts.

Civil Law.—Civil law in a restricted sense is the law compiled under the auspices of the Roman Emperor Justinian, and which is still in force in many States of modern Europe. In a general sense civil law is a designation of law that is not criminal.

Code Law.—Code is the body, scheme or plan of laws established by the State, and designed to regulate, as far as statutes may, the subjects to which they relate. A law is usually called a statute.

Common Law.—Common law is that system of law which prevails, without the direct intervention of statute law, in England and the United States. It is largely unwritten law or *lex non scripta.* In this country the common law is accepted as a basis of jurisprudence in all the States except Louisiana.

Constitution.—The Constitution of the United States says: "full force and effect" are to be given to the decrees of the courts of any State in those of all other States.

Executors.—In general, administration is granted as of course to executors and administrators entitled under the law of the place or *lex domicilii.*

Guardian.—Guardians have no power over the property, real or personal, of their wards under a foreign appointment.

Mortgages' Chattel.—A chattel mortgage when valid and duly registered under the laws of a State in which the property is situated at the time of the mortgage, will be held valid in another State to which the property is removed, although the regulations are different.

Notes.—Bills of exchange and promissory notes are to be governed, as to validity and interpretation, by the law of the place of making, as are other contracts.

Priority of Liens.—Priority of liens and other claims are, in general, to be determined by the law of the place, *lex rei sitæ,* even in regard to personal property.

CRIMINAL LAW.

Criminal law is that branch of jurisprudence which treats of criminal offences. This law is administered on the principle that every one must be taken conclusively to know it, without proof that he does know it.

Cardinal Principles.—1. Every man is presumed to be innocent till the contrary is shown; and if there is any reasonable doubt of his guilt, he is entitled to the benefit of the doubt.

2. In general, no person can be brought to trial till a grand jury on examination of the charge has found reason to hold him to trial.

3. The prisoner is entitled to trial by a jury of his peers, who are chosen from the body of the people with a view to impartiality, and whose decision on questions of fact is final.

4. The question of his guilt is to be determined without reference to his general character, previous history or habits of life.

5. The prisoner cannot be required to criminate himself, nor be compelled to exculpate himself by giving his own testimony on trial.

6. He cannot be twice put in jeopardy for the same offence.

7. He cannot be punished for an act which was not an offence by the law existing at the time of its commission; nor can a severer punishment be inflicted than was declared by law at the time of its commission.

Crimes or Public Offences.—Crimes are wrongs which the State or Commonwealth notices as injurious to the public and punishes in its own name. Crimes are defined and punished by statute and by common law. Crimes are generally arranged according to their nature. The following is a comprehensive classification:

I. *Offences against the sovereignty of the State.* 1. Treason; 2. Misprision of treason.

II. *Offences against the lives and persons of individuals.* 1. Murder; 2. Manslaughter; 3. Attempt to kill or murder; 4. Mayhem; 5. Rape; 6. Robbery; 7. Kidnapping; 8. False imprisonment; 9. Abduction; 10. Assault and battery.

III. *Offences against public property.* 1. Burning or destroying public property; 2. Injury to the same.

IV. *Offences against private property.* 1. Arson; 2. Burglary; 3. Larceny; 4. Obtaining goods under false pretences; 5. Embezzlement; 6. Malicious mischief.

V. *Offences against public justice.* 1. Perjury; 2. Bribery; 3. Destroying public records; 4. Counterfeiting public seals; 5. Jail breach; 6. Escape;

7. Resistance to officers; 8. Obstructing legal process; 9. Barratry; 10. Maintenance; 11. Champerty; 12. Contempt of court; 13. Oppression; 14. Extortion; 15. Suppression of evidence; 16. Compounding felony; 17. Misprision of felony.

VI. *Offences against the public peace.* 1. Challenging or accepting a challenge to a duel; 2. Unlawful assembly; 3. Rows; 4. Riot; 5. Breach of the peace; 6. Libel.

VII. *Offences against chastity.* 1. Sodomy; 2. Bestiality; 3. Adultery; 4. Incest; 5. Bigamy; 6. Seduction; 7. Fornication; 8. Lascivious carriage; 9. Keeping and frequenting houses of ill fame.

VIII. *Offences against public policy.* 1. False currency; 2. Lotteries; 3. Gambling; 4. Immoral shows; 5. Violation of the right of suffrage; 6. Destruction of game, fish, etc.; 7. Nuisance.

IX. *Offences against the currency, and public and private securities.* 1. Forgery; 2. Counterfeiting; 3. Passing counterfeit money.

X. *Offences against religion, decency and morality.* 1. Blasphemy; 2. Profanity; 3. Sabbath-breaking; 4. Obscenity; 5. Cruelty to animals; 6. Drunkenness; 7. Promoting intemperance.

XI. *Offences against the public, individuals, or their property.* 1. Conspiracy.

LEGAL DEFINITIONS.

Abduction.—This is the taking and carrying away of a child, ward, wife, etc., by force, fraud, persuasion or open violence.

Abortion.—The criminal act of miscarrying or producing young before the natural time. It is classed as murder.

Abuse.—To treat rudely, or with reproachful language, to revile. The crime applies to property as well as persons; as, a person is liable for whatever injury arises from the abuse of property.

Accessory.—Is an abettor or accomplice in a crime, and in most of the States an accessory is equally punishable with the principal. An accessory before the fact is one who, being absent at the time the crime is committed, yet commands, counsels or procures another to commit it. An accessory after the fact is one who, knowing an offence to have been committed, assists, conceals, receives or relieves the criminal.

Accusation.—Is the charge in writing, upon oath or affirmation, against one or more persons of a felony or misdemeanor. It must be presented to some court having jurisdiction of the offence, and must be made by a person competent to testify.

Acquittal.—Is the deliverance from the charge of an offence, either by the court or jury.

Admonition.—A reprimand from a person to a person accused, on being discharged, warning him of the consequences of his conduct.

Adulteration.—The unlawful act of corrupting or debasing an article of food so as to render it impure and unwholesome.

Adultery.—Voluntary sexual intercourse of a married person with a person other than the offender's husband or wife.

Affray.—A fight by agreement between two or more persons in a public place. Fighting in private is assault and battery.

Affront.—An uncivil encounter, ill-treatment, insult, outrage, offence.

Aiding and Abetting.—The act of being in such communication, and so situated during the commission of a crime, as to readily aid the perpetrator.

Amercement.—The pecuniary penalty or fine imposed on an offender by the court.

Amnesty.—General pardon of the offences of subjects against the government.

Arraignment.—Act of calling a defendant before the court for trial.

Arrest.—The taking of a person into custody that he may be held to answer for a public offence.

Arson.—The malicious burning of another's house. The term "house" in law comprehends all other buildings.

Assassination.—A murder committed for hire, or without provocation or cause of resentment given by the murdered person.

Assault.—An unlawful setting upon a person; an attempt or offer to beat a person without touching his body. An aggravated assault is one committed with the intention of committing some additional crime. Assault is generally coupled with battery, for they generally go together.

Banishment.—A punishment inflicted upon criminals by compelling them to quit their place or country for a stated time or for life.

Barratry.—The stirring up of quarrels and lawsuits.

Battery.—An unlawful beating, or other wrongful physical violence inflicted on a person without his consent.

Bigamy.—Wilfully contracting a second marriage when the party knows that a first already exists.

Blasphemy.—Speaking evil of the Deity with impious purpose to derogate from the divine majesty.

Bribery.—The receiving or offering of an undue reward by or to any person connected with administrative affairs in order to influence his behavior or induce him to act contrary to duty.

Burglary.—Breaking and entering the house of another in the night time, with the intent to commit a felony therein.

Cheat.—Defrauding, or endeavoring to defraud, another of his known right by some willful device contrary to rules of common honesty.

Complaint.—An accusation made to a proper officer that some person, known or unknown, has been guilty of a designated offence.

Conspiracy.—A combination of two or more persons to accomplish some criminal or unlawful purpose.

Conviction.—That legal proceeding of record which ascertains the guilt of a party and becomes the basis of judgment or sentence.

Culprit.—The person guilty, or supposed to be guilty, of a public offence.

Desertion.—Unlawful abandonment of wife or child, or of the public service in army or navy.

Duelling.—The fighting of two persons at an appointed time, upon a precedent quarrel.

Embezzlement.—Fraudulently removing and secreting personal property with which the party was entrusted for the purpose of applying it to his own use.

Embracery.—An attempt to influence or corrupt a jury, or in any way incline them to favor one side or the other, by money promises, threats or persuasions, whether the juror on whom such attempt is made give a verdict or not, or whether the verdict be true or false.

Extortion.—The unlawful taking by an officer, under color of his office, of anything of value that is not due him, or of more than is due, or before it is due.

False Pretence.—A false representation and statement made with a fraudulent design to obtain money, goods, wares and merchandise, with intent to cheat.

Felony.—An offence punishable by death or by imprisonment in the State prison or penitentiary. It is clearly defined by the statutes of most States.

Fine.—A pecuniary punishment imposed by a lawful tribunal upon a person convicted of a criminal offence.

Forfeiture.—A punishment annexed by law to some illegal act or negligence.

Forgery.—Falsely making or materially altering, with intent to defraud, any writing which, if genuine, might be of legal efficacy or the foundation of a legal liability.

Fornication.—Unlawful carnal knowledge by an unmarried person of another, whether the latter be married or unmarried.

Fraud.—Any deceitful practice by means of which one seeks to defraud another of his known right, contrary to the rules of common honesty.

Gaming.—An agreement between two or more persons to play by certain rules at cards, dice or other contrivance that the result shall determine the owner of an amount staked.

Guilt.—Criminality, offence, liability to punishment. One is presumed to be innnocent until guilt is proved.

Homicide.—The killing of a human being by a human agency. It may be excusable or felonious.

Housebreaking.—Breaking and entering a dwelling-house of another by night or day with intent to commit a felony therein. Housebreaking by night is burglary.

Impeachment.—A written accusation by the State or Federal House of Representatives to the Senate against a State or Federal official.

Incest.—Sexual commerce between persons related within the degrees wherein marriage is prohibited at law.

Indecency.—That which is unfit to be seen, offensive to modesty and delicacy.

Indictment.—A written accusation or formal charge of a crime or misdemeanor preferred to a court by a grand jury under oath.

Kidnapping.—The act of stealing or forcible abduction of a human being from his home or country.

Larceny.—Unlawful or felonious taking and carrying away by one person of the personal goods and chattels of another with intent to convert them to his own use, and without the consent of the owner.

Limitation.—The time within which a claim or an accusation may be made, or an indictment found for a crime. Limitation never expires for the crimes of murder and treason.

Maintenance.—Officious interference in a suit in which the offender has no interest, to assist one of the parties against the other.

Malpractice.—Bad or unskillful practice by a physician or other professional person whereby the health or members of a patient is injured.

Malice.—The intentional doing of an unlawful or felonious act without just cause or excuse.

Manslaughter.—An unlawful killing of one human being by another, without malice or intention.

Mayhem.—Violently and unlawfully depriving another of the use of any bodily member, or willfully disabling the tongue or eye, or slitting or biting the nose, ear or lip of another.

Merger.—The absorption of a lesser offence, or title, or quantity into another.

Misdemeanor.—An offence punishable by fine or imprisonment in the common jail, or both. It is an inferior offence to felony.

Mutiny.—Unlawful insurrection or revolt of soldiers or sailors against the authority of their commanders.

Pardon.—An act of grace proceeding from the power entrusted with the execution of the laws, which exempts an offender from the penalty of his crime.

Perjury.—The crime of making a false oath when lawfully administered in any judicial proceeding.

Piracy.—The crime of robbery or forcible depredation on the high seas. It corresponds to robbery on land.

Rape.—Carnal knowledge of a woman by a man, forcibly and against her will.

Reprieve.—Withdrawal of sentence for a time. It operates in delay of execution.

Riot.—An act done in a violent and tumultuous way by three or more persons, to the terror of the people, whether the act intended was lawful or unlawful.

Robbery.—The forcible and felonious taking from the person of another of goods, money or any article of value, by violence or putting in fear.

Subornation of Perjury.—The offence of procuring another to commit legal perjury, who, in consequence of the persuasion, takes the oath to which he has been incited.

Smuggling.—The fraudulent taking into a country or out of it any article of merchandise prohibited by law.

Sodomy.—Carnal intercourse of human beings with each other against nature, or with a beast.

Stealing.—See Larceny.

Tort.—A private or civil wrong or injury, independent of a contract. The commission or omission of an act by one without right whereby another receives some injury directly or indirectly, in person, property or reputation.

Treason.—The levying of war against a State or nation, adhering to its enemies, giving them aid and comfort.

Trespass.—Injurious visitation or encroachment on the property of another. Where willful or mischievous it is malicious trespass.

Vagrant—A wandering person without a home, who refuses to work and depends on begging for food, shelter and clothing.

Receipts.

A receipt is a written acknowledgment of payment of money or delivery of chattels. An acquittance is a discharge or release from a debt. A receipt differs from a release, in that the latter is under seal. A receipt is executed by the person to whom the delivery or payment is made. It is not conclusive evidence of payment in law, but is presumptive evidence, and subject to explanation. When a receipt acknowledges payment "in full" of a specified debt, or in "full of all accounts," it is of a more conclusive character than when simple. The simplest form of a receipt is that usual on ordinary bills, to wit:

6—9—190—

Received payment, O. S.

RECEIPT IN FULL.

$—— Place ——, Date ——.

Received of A. B. the sum of —— dollars in full of all demands against him. C. D.

RECEIPT FOR INTEREST.

Received this —— day of ——, of C. D., —— dollars in full, for one year's interest of one thousand dollars, due me the —— day of ——, on a bond of said C. D., dated the —— day of ——. A. B.

Release.

A release is the giving up of a claim or right to the person against whom it exists. It may be either express or implied. In general the words of a release comport with the occasion of giving it. In releasing an interest in real estate the usual words are: "Remised, released and forever quit claimed." Releases should be sealed and acknowledged when they are to be recorded.

RELEASE OF ALL CLAIMS AND DEMANDS.

I, O. S., of ——, in the county of ——, and State of ——, for and in consideration of the sum of —— dollars, the receipt of which is hereby acknowledged, do hereby release and forever discharge R. A. (of ——, in, etc.), his heirs, executors, and administrators, of and from all actions, causes of action, suits, controversies, claims, and demands whatsoever, for and by reason of any matter, cause, or thing, from the beginning of the world to this —— day of ——.

In witness whereof, I have hereunto set my hand the day and year last above written.

Executed in presence of O. S.

Sale of Goods and Binding Principles.

Implied Conditions.—Unless otherwise expressed, there is in every sale an implied condition that the agreed price shall be paid before the buyer has a right to possession. This is called a condition precedent. Thus if A. sells a horse for money to B., he may keep him till B. pays the money. But although B. may not have the right of *possession* until he pays the money, yet the right of *property* passed to him by the bargain; and if the horse had died or were lost while in A.'s possession, and without his fault, the loss would fall on B. In an action for non-delivery of a thing sold the buyer need only aver that he was ready and willing to pay for it, and that the seller refused to deliver. In a contract for a sale of goods "to be delivered on or before" a certain day, and the seller fails to deliver on or before that day, the purchaser is not bound to take them.

Return Sale Contract.—In "contracts of sale or return" the property in the goods passes to the purchaser subject to an option in him to return them in a fixed, or a reasonable time. If he fails to do so the sale becomes absolute and the price may be recovered at law.

Auction Sales.—Auction sales are generally conditional sales; and where the conditions are made clearly known to the buyer they are binding on him, and the auctioneer or owner of the goods is equally bound on his part.

What Voids a Sale.—Any misstatement, made fraudulently and with intent to have effect on a sale will make it void. Conditions of a sale will not be binding against a purchaser if so framed as to give the seller advantages which the buyer does not possess, or does not understand.

Delivery.—While *property* passes by a sale without delivery, it is not generally valid as against a third party without notice, without delivery, for if the same thing be sold by the vendor to two parties, by conveyances equally valid, he who first gets possession can hold it. In general, where there is a completed sale, and no change of possession, the retention of possession by the vendor is a badge of fraud, and will avoid the sale in favor of a party who subsequently acquires title to the property in good faith, and without knowledge of the sale. Delivery of goods may be symbolical, as the delivery of the key of a place in which goods are locked. So goods may be symbolically delivered by a mark, as that upon lumber at a wharf, or upon sheep in a field. Both delivery and payment on a contract of sale must be made within a reasonable time, or the aggrieved party acquires the right to sue.

Parties.—All persons of proper age and sound mind are, as a rule, capable of becoming buyers and sellers. Infants cannot purchase, except after a manner. Trustees, guardians, assignees, and persons who by their connection with owners, or by their being employed about their affairs, as lawyers and conveyancers, are incapable of becoming purchasers, while their relations with the owners exist.

Price.—The price must be certain, or capable of being made certain, such as what another man has given, or shall say should be the price. A sale may be made without a price, and the price left to be ascertained by experts. The thing sold must be specific and capable of identification. *Price,* as understod in a contract of sale, is money. If paid in any other way it is *barter* and not *sale.* As a general thing, when a bargain is struck, and nothing is said about payment or delivery, the property passes immediately.

Right of Stoppage.—Stoppage *in transitu,* or while the goods are undergoing delivery, is the right which resides in the vendor upon credit to recall them, upon discovering the insolvency of the vendee before the goods have reached him, or any third party has acquired a right in them. This right of stoppage exists only after the goods have left the vendor's hands, for so long as they remained in his hands he had a lien on them for the payment of the price in full.

Warranty.—Warranties, express or implied, go with every sale. They are of two kinds; warranty of *title* and warranty of *quality.* The seller of a chattel, if in possession of it, warrants by implication that it is his own; but if the seller is out of possession and no affirmation of title be made, the purchaser buys at his peril. As to *quality,* a general warranty does not, as a rule, cover defects which are obvious to the purchaser, or of which he has had knowledge; thus, if a horse be warranted perfect, and want an ear or tail. Yet if the purchaser have been misled as to the character or extent of an obvious defect, a warranty is implied. When goods are sold on sample there is an implied warranty that the goods shall correspond with the sample. No warranty can be implied from circumstances if there is a direct refusal to warrant. Any property may be sold "With all faults," and this is an emphatic exclusion of warranty. Warranties do not, as a rule, accompany judicial sales.

Breach of Warranty.—When warranty is broken, the buyer may bring suit at once in damages, and retain the goods; or, he may return the goods forthwith, rescind the sale, and sue for the price paid. In case he retains the goods their actual value will be considered in estimating the damages.

FORM OF BILL OR CONTRACT OF SALE, WITH WARRANTY.

Know all men by these presents, that in consideration of —— dollars, the receipt of which is hereby acknowledged, I do hereby grant, sell, transfer, and deliver unto C. D., his heirs, executors, administrators, and assigns, the following goods and chattels, viz. (describing it):

To have and to hold all and singular the said goods and chattels forever. And the said grantor hereby covenants with said grantee that he is the lawful owner of said goods and chattels; that they are free from all incumbrances; that he has good right to sell the same, as aforesaid; and that he will warrant and defend the same against the lawful claims and demands of all persons whomsoever.

In witness whereof, the said grantor has hereunto set his hand this —— day of ——.

A. B.

Witness—

The Law of Trade-Marks.

Who May Obtain.—Owners of trade-marks used in commerce with foreign nations or with Indian tribes, if such owners be domiciled in the United States or located in any foreign country or tribe which by treaty, convention, or law affords similar privileges to citizens of the United States, may obtain registration of their trade-marks by filing in the Patent Office a statement specifying name, domicile, location, and citizenship of the party applying, the class of merchandise, and the particular description of goods comprised in said class to which the trade-mark has been appropriated, a description of the trade-mark itself, a drawing illustrating it, which drawing must be of a standard size, and a statement of the mode in which the trade-mark is applied or affixed to the goods, and of the length of time during which the trade-mark has been used.

Verification.—This statement must be signed by the owner of the trade-mark and must be accompanied by a written declaration, verified by the person or by a member of the firm or by an officer of the company applying, to the effect that such party has at the time a right to the use of the trade-mark sought to be registered and that no other person, firm, or corporation has the right to such use, either in the identical form or in any such near resemblance thereto as might be calculated to deceive; that the trade-mark is used in commerce with a foreign nation or an Indian tribe, and that the description and drawing presented for registration truly represent the trade-mark sought to be registered.

Fee and Duration.—The fee for examining and registering a trade-mark is $25, which includes the certificate. This fee should accompany the application. The certificate of registration is issued in the name of the United States of America, under the seal of the Department of the Interior, and signed by the Commissioner of Patents. It remains in force for thirty years from its date, except in a case where the trade-mark is claimed for and applied to an article not manufactured in this country, but receives protection under the laws of a foreign country for a shorter period. In that case it ceases to have any force in this country at the time the trade-mark ceases to be protected in the foreign country.

New Registry and Assignment.—At any time during the six months previous to the expiration of the thirty years the mark may be re-registered for the same term. The right to the use of a trade-mark is assignable by an instrument in writing, which instrument may be recorded in the Patent Office, but said instrument will not be recorded prior to the filing of an application, and it must identify the application by serial number and date of filing, or where the mark has been registered, by the certificate number and the date thereof.

Laws and Rules of the Railway.

Flags and Lights.—Each train, while running, must display two green flags by day and two green lights by night, one on each side of the rear of the train, as markers, to indicate the rear of the train. Yard engines need not display markers.

Headlight.—Each train when running after sunset, or when the air is obscured by fog or other cause, must display the headlight in front and two or more red lights in the rear. Yard engines must display two green lights instead of red, except when provided with a headlight on both front and rear.

Communication with Engine.—Each car on a passenger train while running must be in communication with the engine. In the absence of an equivalent appliance a bell-cord must be attached to the signal bell of the engine, passing through or over the entire length of the train, and secured to the end of it.

A Following Train.—Two green flags by day and night, and in addition, two green lights by night, displayed in the places provided for that purpose on the front of the engine, denote that the train is being followed by another train, running on the same schedule and entitled to the same time rights as the train carrying the signals.

Extra Trains.—Two white flags by day and night, and in addition two white lights by night, displayed in the places provided for that purpose on the front of an engine, denote that the train is an extra. These signals must be displayed by all extra trains.

The Safety Flag.—A blue flag by day and blue light by night placed on the end of a car, denote that car inspectors are at work under or about the car or train. The car or train thus protected must not be coupled to, or moved, until the blue signal is removed by the car inspectors.

Prior Notice.—When a car or train standing on a siding is protected by a blue signal, other cars must not be placed in front of it so that the blue signal will be obscured, without first notifying the car inspector, that he may protect himself.

Whistle Signals.—One long blast of the whistle is the signal for approaching stations, railroad crossings and junctions (thus, ———).

One short blast of the whistle is the signal to apply the brakes—stop (thus, ——).

Two long blasts of the whistle is the signal to throw off the brakes (thus, ——— ———).

Two short blasts of the whistle is an answer to any signal, except "train parted" (thus, —— ——).

Three long blasts of the whistle (to be repeated until answered as provided) is a signal that the train has parted (thus——— ——— ———).

Three short blasts of the whistle, when the train is standing (to be repeated until answered), is a signal that the train will back (thus, —— —— ——).

Four long blasts of the whistle is the signal to call in a flagman from the west or south (thus, ——— ——— ——— ———).

Four long blasts followed by one short blast of the whistle is the signal to call in a flagman from the east or north (thus, ——— ——— ——— ——— ——).

Four short blasts of the whistle is the engineman's call for signals, from switchtenders, watchmen, trainmen and others (thus, —— —— —— ——).

Five short blasts of the whistle is a signal to the flagman to go back and protect the rear of the train (thus, —— —— —— —— ——).

One long, followed by two short blasts of the whistle, is a signal to be given by trains when displaying signals for a following train to call the attention of trains of the same or inferior class to the signals displayed (thus, ——— —— ——).

Two long, followed by two short blasts of the whistle, is the signal for approaching road crossings at grade (thus, ——— ——— —— ——).

A succession of short blasts of the whistle is an alarm for persons or cattle on the track, and calls the attention of trainmen to danger ahead.

Whistle-Cord Signals.—One blast of the signal-whistle when the train is standing, is the signal to start.

Two blasts of the signal-whistle, when the train is running, is the signal to stop at once.

Two blasts of the signal-whistle, when the train is standing, is the signal to call in the flagman.

Three blasts of the signal-whistle, when the train is running, is the signal to stop at the next station.

Three blasts of the signal-whistle, when the train is standing, is the signal to back the train.

Four blasts of the signal-whistle, when the train is running, is the signal to reduce speed.

When one blast of the signal-whistle is heard, while the train is running, the engineer must immediately ascertain if the train is parted.

Signals of the same number of sounds shall have the same significance when given by other appliances.

Lamp Signals.—A lamp swung across the track is the signal to stop.

A lamp raised and lowered vertically is the signal to move ahead.

A lamp swung vertically in a circle across the track, when the train is standing, is the signal to move back.

A lamp swung vertically in a circle at arm's length across the track, when the train is running, is the signal that the train has parted.

A flag, or the hand, moved in any of the above directions, will indicate the same signal as given by a lamp.

Fixed Signals.—Fixed signals are placed at junctions, crossings, stations and other places that require special protection, and special instructions indicate their position and use.

Qualifications of Voters in Each State.

The qualifications for voting in the respective States are fixed by the statutes thereof. In four States, Colorado, Idaho, Utah and Wyoming, women have full suffrage. In many States they are privileged to vote at school elections. In all the States except the four above mentioned the voting privilege is withheld from those below twenty-one years of age, and in many States previous registry is required. Residence, citizenship, tax and other requirements differ greatly in the States, and may be found in the synopsis of laws below, showing

Who May Vote.

Alabama.—A citizen of the United States or alien who has declared his intention may vote in Alabama, provided he has resided one year in the State, three months in the county and thirty days in the town or district. Registry required. Persons convicted of felony, idiots and insane are disqualified.

Arizona Territory.—Citizens of United States or aliens who have declared intentions; poll-tax must be paid for current year. Registry is required. Previous residence one year in Territory; thirty days in county, town or precinct. Disqualified—felons, idiots, insane.

Arkansas.—Citizens of the United States, or aliens who have declared intentions. Previous residence—one year in State; six months in county; thirty days in town or precinct. Disqualified—felons, idiots, insane, United States soldiers or marines, those who have failed to pay poll-tax.

California.—Native citizens and those naturalized ninety days before election. Registry is required. Previous residence—one year in State; ninety days in county; thirty days in precinct. Disqualified—Chinese, idiots, insane, convicted criminals of infamous crime; persons unable to write or to read the Constitution in English.

Colorado.—Citizens, male or female, or aliens of both sexes who have declared intentions four months before election. Registry is required. Previous residence—six months in State; ninety days in county; ten days in precinct. Disqualified—those in prison or under guardianship, idiots, insane.

Connecticut.—Citizens of United States who can read English. Registry is required. Previous residence—one year in State; six months in town. Disqualified—unpardoned convicts of heinous crimes.

Delaware.—Citizens who have paid a registry fee of $1. Previous residence—one year in State; three months in county; thirty days in precinct. Disqualified—convicted felons, insane, paupers.

District of Columbia.—Residents of District of Columbia have no right to vote on national or municipal affairs.

Florida.—Citizens of the United States. Registry is required. Previous residence—one year in State; six months in county or town, three months in precinct. Disqualified—duelists, insane, convicted felons.

Georgia.—Citizens of United States who have paid all taxes since 1877. Registry is required. Previous residence—one year in State; six months in county. Disqualified—felons, unless pardoned, idiots, insane.

Idaho.—Male and female citizens of United States. Registry is required. Previous residence—six months in State; thirty days in county; three months in town. Disqualified—convicted felons, wards, idiots, insane, bigamists, polygamists.

Illinois.—Citizens of United States. Registry is required. Previous residence—one year in State; ninety days in county; thirty days in town and precinct. Disqualified—convicted felons or bribers at elections, unless restored to citizenship.

Indiana.—Citizens, or alien residents of one year in United States who have declared intentions. Previous residence—six months in State; sixty days in county or town; thirty days in precinct. Disqualified—persons convicted of infamous crimes, soldiers and sailors in United States service.

Iowa.—Citizens of the United States. Registry required in cities of over 3,500 inhabitants. Previous residence—six months in State; sixty days in county; in cities, ten days in the ward. Disqualified—felons, insane, idiots.

Kansas.—Citizens of United States or aliens who have declared intentions; women at school elections. Registry required in cities of first and second class. Previous residence—six months in State; thirty days in county, town and district. Disqualified—felons, insane, idiots, embezzlers, bribers, dishonorably discharged soldiers of United States.

Kentucky.—Citizens of the United States. Registry required in towns of 3,000 and over. Previous residence—one year in State; six months in county; sixty days in town and precinct. Disqualified—convicts for treason, felony or bribery, idiots, insane.

Louisiana.—Citizens of United States who can read and write, own $300 dollars' worth of property in their own name, or whose father or grandfather was entitled to vote on January 1, 1867. Registry is required. Previous residence—two years in State; one year in county; six months in precinct. Disqualified—indicted felons, prisoners, insane, idiots, inmates of charitable institutions except soldiers.

Maine.—Citizens of the United States. Registry required in cities and towns of 500 voters or more. Previous residence—three months in State, county, town or precinct. Disqualified—paupers and Indians not taxed.

Maryland.—Citizens of United States. Registry is required. Previous residence—one year in State; six months in county, town or precinct. Disqualified—unpardoned felons, insane, idiots.

Massachusetts.—Citizens who can read and write; women at school elections. Registry is required. Previous residence—one year in State; six months in county, town or precinct. Disqualified—paupers and wards.

Michigan.—Citizens or aliens who have declared intentions prior to May 8, 1892; poll-tax for current year must be paid. Registry is required. Previous residence—six months in State; thirty days in county, town or precinct. Disqualified—tribal Indians, duelists and seconds.

Minnesota.—Citizens of United States three months before election. Registry is required. Previous residence—six months in State; thirty days in county, town or precinct. Disqualified—felons unpardoned, wards, insane, uncivilized Indians.

Mississippi.—Citizens of United States who can read or understand the Constitution. Registry required four months before election. Previous residence—two years in State; one year in county, town or precinct, except clergymen who require only six months in precinct. Disqualified—felons, insane, idiots, Indians not taxed, bigamists, those who have not paid taxes.

Missouri.—Citizens of United States, or aliens who have declared not less than one nor more than five years before election. Registry required in cities of 100,000 inhabitants and over. Previous residence—one year in State; sixty days in county, town or precinct. Disqualified—convicts of infamous crimes, paupers supported at public expense, soldiers and sailors in United States service.

Montana.—Citizens of United States; women at school elections. Registry is required. Previous residence—one year in State; thirty days in county, town or precinct. Disqualified—unpardoned felons, Indians, soldiers and sailors in United States service, idiots, insane.

Nebraska.—Citizens of United States or aliens who have declared intention thirty days before election. Registry required in cities of over 7,000 inhabitants. Previous residence—six months in State; forty days in county; ten days in town or precinct. Disqualified—persons convicted of treason or felony, idiots, insane.

Nevada.—Citizens of the United States. Registry is required. Previous residence—six months in State; thirty days in county, town or district. Disqualified—idiots, insane, Indians, Chinese, unpardoned convicts.

New Hampshire.—Citizens of the United States; women at school elections. Previous residence—six months in State; six months in county, town or precinct. Disqualified—paupers, persons excused from paying taxes at own request.

New Jersey.—Citizens of the United States. Registry is required. Previous residence—one year in State; five months in county, town or precinct. Disqualified—idiots, insane, paupers, convicted criminals unless pardoned.

New Mexico Territory.—Citizens of United States. Registry is required. Previous residence—six months in Territory; three months in county; thirty days in town or precinct. Disqualified—Indians, unpardoned convicts for felony, United States soldiers, sailors or marines.

New York.—Citizens of United States ninety days before election; women at village tax elections. Registry required in villages of over 5,000 people. Previous residence—one year an inhabitant of State; four months' residence in county; thirty days in election district. Disqualified—unpardoned convicts for infamous crimes, bribery, betting on elections, offences against franchise.

North Carolina.—Citizens of the United States. Registry is required. Previous residence—two years in State; six months in county; four months in precinct, ward or district. Disqualified—convicted felons, idiots, lunatics, persons unable to read and write and who have not paid previous year's poll-tax, but not if they were entitled to vote prior to January 1, 1867, or if they are descendants of such.

North Dakota.—Citizens of United States and civilized Indians; women at school elections. Registry required in certain counties and villages. Previous residence—one year in State; six months in county; ninety days in precinct. Disqualified—wards, idiots, insane, unrestored convicts for treason or felony.

Ohio.—Citizens of the United States; women at school elections. Registry required in cities of first and second class. Previous residence—one year in State; thirty days in county; twenty days in town or precinct. Disqualified—idiots, insane, felons, outside United States soldiers, sailors or marines on duty in State.

Oklahoma Territory.—Citizens of United States; Indians who have severed tribal relations; women at school elections. Previous residence—six months in Territory; sixty days in county or town; thirty days in precinct. Disqualified—idiots, insane, felons.

Oregon.—Citizens of United States or aliens who have declared intentions more than a year before election; women at school elections. Registry is required. Previous residence—six months in State. Disqualified—Chinese, convicted felons, idiots, insane.

Pennsylvania.—Citizens of United States for at least thirty days, and if over twenty-two years must have paid tax within two years. Registry by assessor required. Previous residence—one year in State, or six months if former resident; two months in precinct. Disqualified—convicts for perjury, fraud or bribery as election officers.

Rhode Island.—Citizens of the United States.

Non-taxpayers must register yearly before December 31. Previous residence—two years in State and one year owner of realty; six months in town or precinct. Disqualified—lunatics, paupers, wards, unrestored convicts for bribery or other infamous crime.

South Carolina.—Citizens of the United States who have paid poll-tax six months before election, can read and write any section of State constitution, or show that taxes for previous year have been paid on property in State assessed at $300 or more. Registry is required. Previous residence—two years in State; or for ministers and teachers six months; one year in county; four months in town or precinct. Disqualified—unpardoned criminals against election laws and felons, idiots, insane, paupers.

South Dakota.—Citizens of United States, aliens who have declared intentions, Indians who have severed tribal relations, women at school elections. Registry is required. Previous residence—six months in State, but one year in United States; thirty days in county; ten days in town or precinct. Disqualified—wards, insane, unpardoned convicts for treason or felony, United States soldiers, sailors or marines.

Tennessee.—Citizens of United States who have paid previous year's poll-tax. Registry is required. Previous residence—one year in State; six months in county, town or precinct. Disqualified—convicts for bribery or other infamous crimes.

Texas.—Citizens of United States or aliens who have declared intentions six months before election. Registry is required in cities of 10,000 population and over. Previous residence—one year in State; six months in county, town or district. Disqualified—felons, idiots, lunatics, paupers, United States soldiers, sailors or marines.

Utah.—Male and female citizens of United States. Registry is required. Previous residence—one year in State; four months in county; sixty days in precinct. Disqualified—unpardoned convicts for treason or election crimes, idiots, insane.

Vermont.—Citizens of United States. Previous residence—one year in State; three months in town; thirty days in precinct. Disqualified—all who have not previously obtained the approval of the local board of civic authority.

Virginia.—Citizens of the United States. Registry is required. Previous residence—one year in State; three months in county or town; thirty days in precinct. Disqualified—idiots, lunatics, unpardoned convicts for election bribery, embezzlement, treason, felony, larceny, principals and seconds in duels.

Washington.—Citizens of the United States, residents of Territory before Statehood, women at school elections. Registry required in precincts of 250 or more voters. Previous residence—one year in State; ninety days in county; thirty days in town or precinct. Disqualified—Indians not taxed, convicts for infamous crimes, idiots, lunatics.

West Virginia.—Citizens of the State. Previous residence—one year in State; sixty days in county. Disqualified—convicts for treason, felony and election crimes, paupers, lunatics, idiots.

Wisconsin.—Citizens of the United States, aliens who have declared intentions, Indians who have severed tribal relations, women at school elections. Registry required in cities of 3,000 inhabitants and over. Previous residence—one year in State; ten days in town or precinct. Disqualified—wards, insane, idiots, convicts for treason, felony or election betting.

Wyoming.—Male and female citizens of the United States. Registry is required. Previous residence—one year in State; sixty days in county; ten days in town or precinct. Disqualified—idiots, insane, felons, those who cannot read the State constitution in English.

Legal Holidays in the United States.

No National Holiday.—There is no national holiday in the United States. Congress has at various times appointed special holidays. Thus, the Fifty-third Congress made Labor Day a holiday in the District of Columbia, and it has recognized the existence of certain holidays for commercial purposes. The President's proclamation of Thanksgiving makes it a legal holiday only in the District of Columbia and in those States which provide for it by statute.

Saturday Half-Holiday.—This half-holiday is rapidly growing in favor and is recognized by law in Colorado, Connecticut, Delaware, District of Columbia, Louisiana, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Rhode Island, Virginia; and by custom in California, Illinois, Iowa, Minnesota, New Hampshire, Washington, Wisconsin. In Maryland it is recognized by law in Baltimore, Harford and Montgomery counties; in Missouri in cities over 100,000 population; in Ohio in cities over 50,000 population; in Texas by custom during summer; in South Carolina in Charleston only.

Arbor Day.—Is a legal holiday, rapidly growing in favor, in Arizona, Maine, Minnesota, North Dakota, Wisconsin and Wyoming, the date being set by the Governor. In Texas it is observed February 22; in Nebraska, April 22; Montana, May 8; Utah, April 15; Rhode Island, May 11; Florida, first Friday in February; Georgia, first Friday in December; Colorado, first Friday after May 1, as a school holiday; in several other States on one or more customary dates as a school holiday only.

Other Legal Holidays.—Other legal holidays in the various States are:

January 1. New Year's Day: In all the States (including the District of Columbia, Arizona and New Mexico), except Massachusetts, Mississippi and New Hampshire.

January 8. Anniversary of the Battle of New Orleans: In Louisiana.

January 19. Lee's Birthday: In Florida, Georgia, North Carolina, South Carolina, Virginia and Alabama.

February 11, 1903. Mardi-Gras: In Alabama and the parish of Orleans, Louisiana.

February 12. Lincoln's Birthday: In Connecticut, Illinois, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, Washington (State) and Wyoming.

February (Third Tuesday). Spring Election Day: In Pennsylvania.

February 22. Washington's Birthday: In all the States (including the District of Columbia and Arizona), except Mississippi, where it is observed by exercises in the public schools only.

March 2. Anniversary of Texan Independence: In Texas.

April 10, 1903. Good Friday: In Alabama, Louisiana, Maryland, Pennsylvania, Tennessee.

April 6. Confederate Memorial Day: In Louisiana.

April 19. Patriots' Day: In Massachusetts.

April 21. Anniversary of the Battle of San Jacinto: In Texas.

April 26. Confederate Memorial Day: In Alabama, Florida, Georgia and Mississippi.

May 10. Confederate Memorial Day: In North Carolina and South Carolina.

May (Second Friday). Confederate Day: In Tennessee.

May 20. Anniversary of the Signing of the Mecklenberg Declaration of Independence: In North Carolina.

May 30. Decoration Day: In all the States and Territories (and District of Columbia), except Alabama, Florida, Georgia, Idaho, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia.

June 3. Jefferson Davis' Birthday: In Florida, Georgia and Alabama.

July 4. Independence Day: In all the States and the District of Columbia, Arizona and New Mexico.

July 24. Pioneers' Day: In Utah.

August 16. Bennington Battle Day: In Vermont.

September 7, 1903. Labor Day: In all the States and Territories (and District of Columbia), except Arizona, Louisiana, Mississippi, Nevada, North Dakota and Oklahoma.

September 9. Admission Day: In California.

October 12. North Carolina Day: In public schools of the State of North Carolina.

November 1. All Saints' Day: In Louisiana.

November —. General Election Day: In Arizona, California, Colorado, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, West Virginia, Washington, Wisconsin and Wyoming, in the years when elections are held in these States.

November —. Thanksgiving Day (usually the fourth Thursday in November): Is observed in all the States and in the District of Columbia, Arizona and New Mexico, though in some States it is not a statutory holiday.

December 25. Christmas Day: In all the States and in the District of Columbia, Arizona and New Mexico.

Sundays and Fast Days are legal holidays in all the States which designate them as such.

There are no statutory holidays in Mississippi, but by common consent the Fourth of July, Thanksgiving and Christmas are observed as holidays. In Kansas, Decoration Day, Labor Day and Washington's Birthday are the only legal holidays by legislative enactment; other legal holidays are so only by common consent. In New Mexico, Washington's Birthday, Decoration Day, Labor Day, Flag Day (June 14) and Arbor Day are holidays when so designated by the Governor.

WHERE WE LIVE; OR, THE LAW OF DOMICIL

Domicil is where a man has his true, fixed and permanent home, to which, whenever absent, he intends to return.

Domicil may be either national or domestic. Whether one is domiciled in the United States or England is a question of national domicil. In what county in either country one is domiciled is a question of domestic domicil.

Legal Residence and domicil are generally used as synonymous terms. Two things must concur to establish domicil. There must have been actual residence. The character of the residence is of no importance. If it once existed, mere temporary absence will not destroy it, however long continued, as in the case of a soldier in the army. The law favors the presumption of a continuance of domicil. Original domicil continues till it is fairly changed for another, and it revives with an intention to return. The principle of revival does not, however, apply where both domicils are domestic. Mere taking up residence is not sufficient, unless there be an intention to abandon the former domicil; nor is intention of continuing domicil alone sufficient, unless accompanied by some acts in furtherance of such intention. Both inhabitancy and intention are to a great extent matters of fact, and may be gathered from slight indications. The place where a person lives is presumed to be the place of domicil until facts establish the contrary.

Domicil is of three kinds: 1, domicil by birth; 2, domicil by choice; 3, domicil by operation of law. The place of birth is the domicil by birth, if at that time it is the domicil of the parents. If the parents are on a journey, the actual domicil of the parents will generally be the place of domicil. Children of Ambassadors and children born on the sea take the domicil of their parents. The domicil of an illegitimate child is that of the mother; of a legitimate child, that of the father. The domicil by birth of a minor continues to be his domicil until changed.

Domicil by Choice is that which a person of capacity, of his own free will, selects to be such. Residence by constraint, which is involuntary, by banishment, arrest or imprisonment, will not work a change of domicil.

Domicil by operation of law is conferred in many cases either expressly or consequentially. Children born in foreign lands of parents who are at the time citizens of the United States, have their domicil of birth in the United States.

Domicil of the husband is that of the wife. A woman on marriage takes the domicil of her husband, and the husband, if entitled to a divorce, may obtain it, though the wife be actually resident in a foreign state. If the wife be entitled to a divorce she may acquire a separate domicil. The domicil of a widow remains that of the deceased husband until she makes a change. The domicil of the ward follows that of the guardian. While Ambassadors and other foreign ministers retain a domicil in their own country, the same is not true of consuls and other commercial agents.

Change of Domicil may be made at any time, and the object of the change does not affect the right, if it be a genuine change, with real intention of permanent residence. Children follow the domicil of the father, if the change be *bona fide;* but there are limitations to this power in the case of alien parents. Children follow the domicil of the mother, if a widow, but not, however, if she acquires a new domicil by remarriage. The guardian has the same power over his ward as the parent over his child. The domicil of a lunatic may be changed with the direction or assent of his guardian. It is doubtful whether a guardian can change the national domicil of his ward. A husband may not change his domicil after committing an offence which entitles a wife to a divorce, so as to deprive her of her remedy, and in like case the wife may not acquire a new domicil.

Death. The presumption of death arises after the absence of a person from his domicil for seven years without having been heard from.

Residence is a personal presence in a fixed and permanent abode, and though it differs from domicil, it is a great matter of importance in determining the place of domicil. Residence and habitancy are used synonymously. Residence indicates permanency of occupation, as distinct from lodging, or boarding, or temporary occupation, but does not include as much as domicil, which combines intention combined with residence.

LIBRARY OF CONGRESS
0 021 085 582 8